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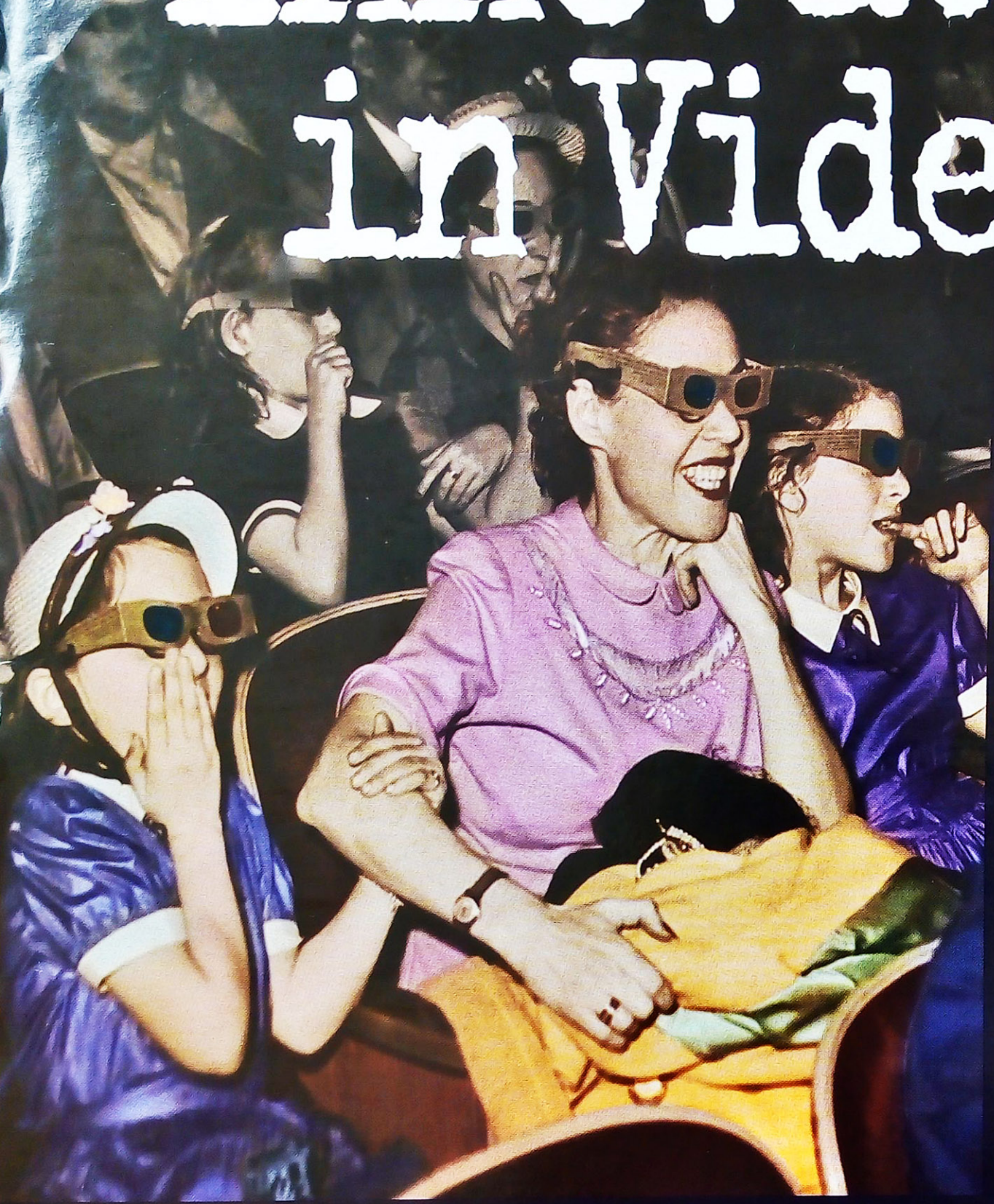

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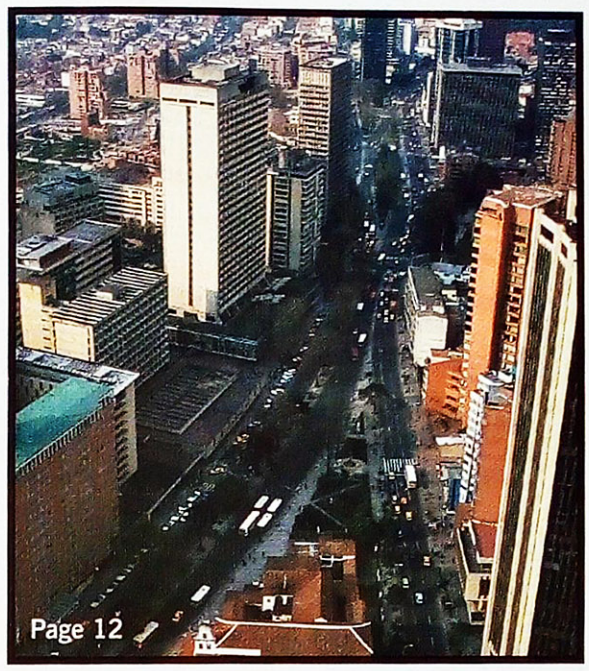

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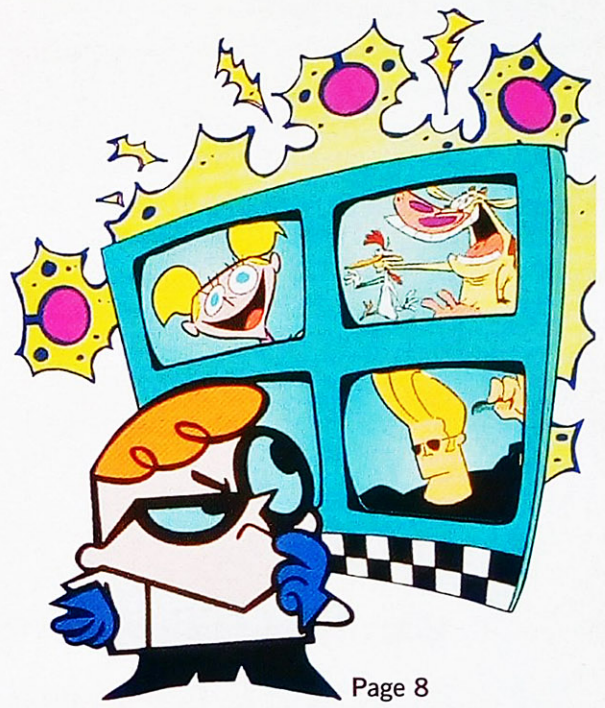

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ON THE COVER: BBC Television Centre in London

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WORLD **WATCH**

Markets in Motion

BY JANET STILSON

When you were a kid, were you subjected to group photo shots of your entire class — bad hair, gawky teeth and all? While working on some of the elements of this issue, I felt like I was looking at a couple of those pictures, because the groups of companies they refer to are changing practically in the blink of an eye, it seems.

In particular, I'm referring to the profiles of two Colombian cable operators and a rather amazing chart on Canadian channels. I'm particularly pleased to present the Canadian overview, because it fills a void in the lineup of charts we produce over the course of each year that break down the ownership of satellite-delivered channels around the world. A careful scrutiny of this one reveals that there is still quite a healthy number of independent channels in Canada — a situation that has gone the way of the Dodo bird in most markets. But that's one of several characteristics that is likely to change fairly quickly.

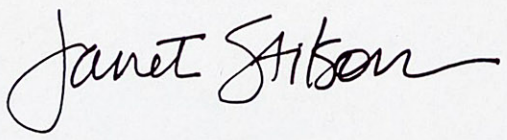
Massive changes are in the works for both Colombian and Canadian multichannel companies.

As our Canadian correspondent James Careless points out to me, right now, Canadian systems are prohibited from directly owning channels. But they've managed to find ways of doing so indirectly, through entities like Shaw Communications Inc.'s unit Corus Entertainment Inc., in which Liberty Media Group recently agreed to invest. The bid by telco BCE Inc. for the broadcast-and-cable-network company CTV Inc. suggests that distributors are closing in even further on the content opportunities. And the Canadian Radio-television and Telecommunications Commission is opening the door further by allowing distributors to directly apply for channel licenses when it opens the round of bidding on the new licenses next month. Those events, on top of the pending merger of Rogers Communications Inc. and Le Group Vidéotron Ltée., suggest massive changes ahead for Canada.

Of equal weight to that chart is an article by Bogotá-based Juan Buenaventura that looks at the significant hurdles in the sight lines of two Colombian systems. One has enjoyed a legal license for years, and the other is a street-fighting upstart that just finally gained legal status. The systems are among a chosen few in Colombia that are starting a new concept: regional multiple system operations.

I shall not soon forget my trip to Colombia last year, winding my way past countless guerilla-fatigue-clad military guards with semi-automatic weapons. And I can't help wondering how the development of cable could impact the highly charged political situation there. One need only look at countries like India or Russia to see how politicians are using channels to spread their messages. And as our Blips on the Screen story about Russian commentator Sergei Dorenko suggests, those messages can pack a huge punch, though not necessarily a positive one.

There's little doubt that next year's snapshots of Colombia and Canada could show dramatic maturity, each in their own very individual ways.



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BLIPS ON THE SCREEN

Via's Chilean Vision

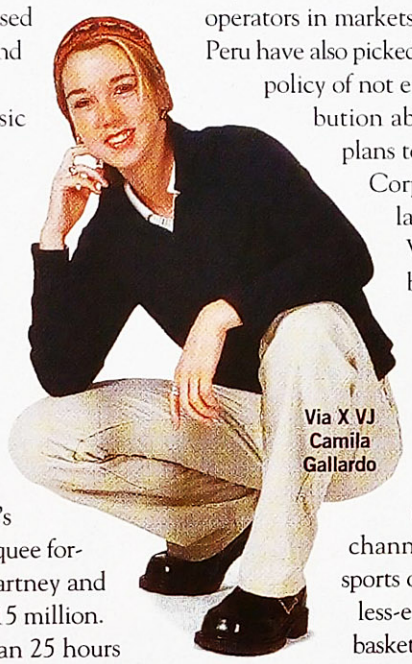
Making channels work for a limited customer base

SANTIAGO

BY JOSHUA GOODMAN

Carving a niche as a pay TV programming independent is no cakewalk anywhere in the world. And it's especially tough in a small market like Chile, where the pay TV subscriber level hovers around 800,000. Yet Santiago-based Via Comunicaciones claims it has found a workable "Made in Chile" strategy.

The company produces three music channels: rock and pop influenced Via X; Zona Latina, focusing on Latin music; and Wurlitzer, a jukebox-style channel. The trio competes against panregional networks, such as MTV Latin America, and neighborly import MuchMusic Argentina.


Via X VJ Camila Gallardo

Ironically, the creator of Chile's local player is one of globalization's unabashed adherents. Since 1989, Luis Venegas has become Chile's top concert promoter, attracting marquee foreign artists such as Sting, Paul McCartney and Whitney Houston to this country of 15 million.

Each week, Via produces more than 25 hours of original programming, the bulk of which is seen on flagship channel Via X. Like its more aggressive competitors, Via X has invested heavily in crafting the public images of its young VJs, many of whom have come to the channel with strong backgrounds in television and radio.

Along with Zona Latina and Wurlitzer, Via programming has become a staple on the lineups of Chile's multiple system operator (MSO) duo of VTR Hipercable and Metropolis-Intercom. Smaller cable operators in markets such as Argentina, Bolivia and Peru have also picked up the channels, thanks to Via's policy of not encrypting its channels for distribution abroad. In August, the company plans to switch its signal to PanAmSat Corp.'s PAS IR, a soon-to-be-launched satellite that will give Via's channels expanded distribution throughout the entire Spanish- and Portuguese-speaking world, as well as the Southern U.S.

Via is now looking to branch out into other areas. The company plans to soon unveil the framework for a sports channel that will televise national sports other than soccer. It will feature less-expensive fare such as rugby and basketball games, track-and-field competitions and rodeos, while providing news coverage of big-name Chilean athletes and pre-

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The Moscow Mudslinger

MOSCOW

BY ANDREI ZOLOTOV JR.

Astonishment grew among Russia's political elite and the core of journalists assembled in a huge Moscow television studio one night last December. The complex had become a combination data-processing center, newsroom and election-night party, as the results of Russia's Parliamentary elections rolled in.

Few could believe the Kremlin-backed Unity party was getting more than 23 percent of the vote. Unity — which had been hastily nailed together less than three months before the elections and

Dorenko, center, faces reporters.

custom-tailored for Prime Minister Vladimir Putin — soundly defeated the Fatherland-All Russia bloc of former Prime Minister Yevgeni Primakov and Moscow Mayor Yuri Luzhkov.

Amid the buzz stood the winner of the campaign, a black-shirted man named Sergei Dorenko, the anchor of a weekly political show simply called *Sergei Dorenko's Program*. It airs on the nation's largest TV channel, ORT.

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Richard Callahan's Cable Caravan

NEW YORK

BY MIKE GALETTO

Remember the days when brash guys from the heartland of the United States charged into overseas markets prospecting for greenfield cable investments? Now it seems like everyone's just hiring investment banks and letting pencil-neck MBA boys crunch the numbers.

Well, Richard Callahan is bringing some of the fun back. The former head of U S West International (now MediaOne International) has spent the last few years swaggering across Europe aiming to build what he calls "a pan-European property base" through his investment firm Callahan Associates International LLC (CAI).

Late last month, CAI made a huge run toward that goal line, nailing down a deal to acquire 55 percent of Deutsche Telekom A.G.'s North Rhine Westphalia cable operations. The acquisition of the system, with 8 million homes under franchise and 4.2 million customers, swells CAI's subscriber base — which also includes Spanish and French investments — by tenfold, Callahan says. It represents "an enormous change [and] puts us in a leadership position," he adds.

Callahan, a former scholastic-American football player at the University of Nebraska, also says his firm is looking to put its brains and newfound brawn to work in Asia, and is surveying about five markets there for broadband fixed-wireless services.

Before leaving U S West in 1996, Callahan started or invested in cable and cellular projects in 18 countries, so he's definitely a hands-on kind of guy. "We don't do a business where we don't play a role," he says. But he's also been pretty adept at backing his current ventures with some serious financial muscle, including GE Capital, Bank of America Corp. and Caisse de Dépôt et de Placement du Quebec, Canada's biggest pension fund. For the German deal, Callahan says, he raised $US3 billion in cash and debt, a portion of which will go toward expanding and operating the systems.

CALLAHAN

In CAI's first project, three-year-old Spanish multiple system operator ONO, Callahan is teamed with the financial backers, as well as with three Spanish firms: banker Banco Santander Central Hispano S.A., construction firm Ferrovial and telecommunications holding company Multitel. ONO is building out its network in 20 cities, and offering commercial service in 11 of them. Last year, it grew at a healthy clip, doubling its customer base to almost 41,000. About three-quarters of those customers are buying TV service, while the rest are exclusive telephony customers. To be sure, ONO sports a hearty mix of homes buying both, with the average customer subscribing to 1.7 services.

From the beginning, ONO billed itself as a full-service provider, aiming to take advantage of a more favorable regulatory scene and a growing economy.

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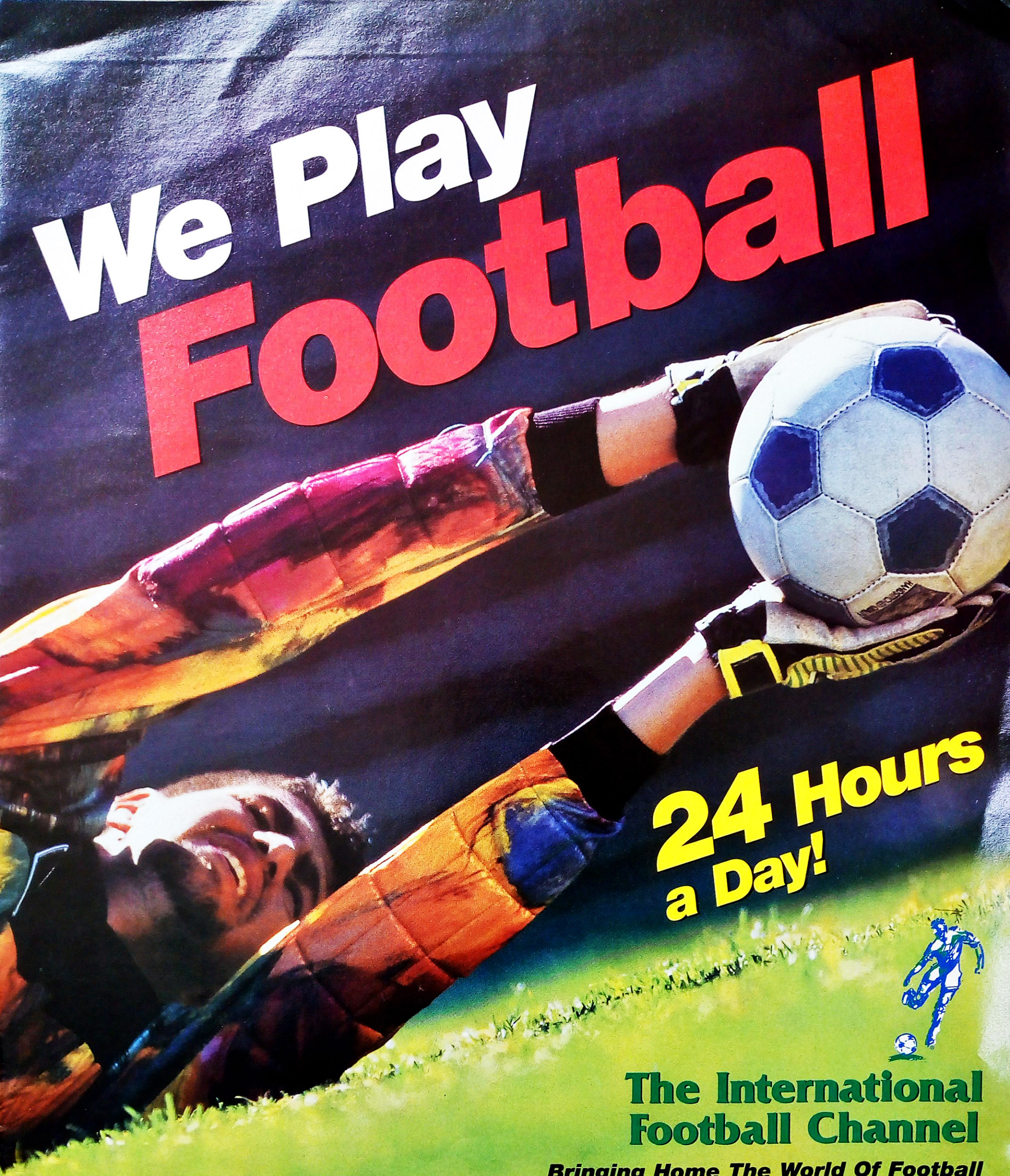

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Advertising

HotSpots

An Animated Latino Cross-Promotion

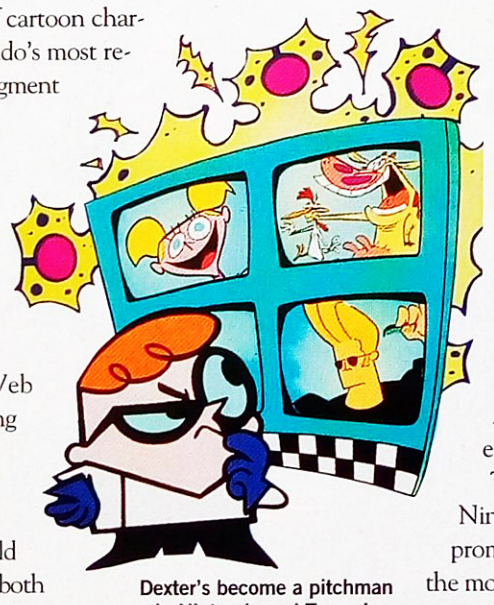
Cartoon Network and Nintendo mix and match their brand characters

BY JO DALLAS

It may be a surprise to find Scooby Doo, Johnny Bravo and The Powerpuff Girls cavorting on the little screen with the likes of Pokémon characters and mustached Mario of Nintendo fame, but these animated individuals from two very different companies can be found together on Cartoon Network Latin America and its Web site.

They've become such good playmates all of a sudden thanks to a unique on-air cross-promotion between Nintendo Latin America and Cartoon Network parent Turner Broadcasting System Latin America Inc.

The promotion consists of cartoon character Dexter hosting Nintendo's most recent "Game of the Month" segment on the *Dexter's Laboratory* show, which Cartoon Network Latin America televises on Friday and Saturday evenings. From there, viewers are invited to check out Cartoon Network's Web site, which has links to Nintendo's own Web pages. It's all aimed at boosting sales of Nintendo's Game Boy handheld video-game player and associated gear.



Dexter's become a pitchman in Nintendo and Turner's Latino collaboration.

Certainly, the 11-month-old project is groundbreaking for both Cartoon Network. While the channel has found novel ways to promote its advertisers in the past, never before has it put its 'toons themselves so directly at the service of an advertiser.

"In Latin America, we have never done something to this level of integration. Nintendo has been advertising with us for three years, but this is the first time that Cartoon has got involved to such an extent with a client," says Karen Bronzo, Turner's director of advertising-sales marketing for the Americas. She adds that extending this TV relationship to the Internet is also another first.

For both parties, there is a natural overlap in terms of the audience they want to reach. "Primarily for Nintendo, [there was the right] brand affinity and the same target demographic," says Mark Stockdale, advertising and promotions manager at Nintendo Latin America. Cartoon Network's enviable position as the region's top-rated network was also a lure for Nintendo.

"Cartoon is fun, vibrant and visual — a great match for Nintendo," Bronzo chimes in. Both Cartoon Network and Nintendo describe the campaign as highly successful, though Stockdale declines to supply any hard data to back that statement up, simply repeating the often-heard phase about never knowing which half of an advertising budget is effective and which half gets wasted. The real evidence will be whether Nintendo decides to renew its contract in May for another year or so.

Nevertheless, the company appears genuinely unworried about the lack of measurement data, a concern voiced by many marketers when it comes to advertising on Latin American cable. In contrast to broadcast TV, cable is a much more targeted medium, because it automatically hits the higher-income groups, argues Stockdale. "Cable TV by definition slices into those [wealthier] households," he says. "O.K. it's not the perfect solution, but it is the next best thing. It's either that, or going out and advertising shotgun fashion" on over-the-air TV. Panregional cable is also more economical option. "We can't afford to do local [broadcast] buys," he adds, explaining why Nintendo only chooses that option in three countries — Mexico, Argentina and Chile — in the entire region.

Then again, the main reason that Nintendo even contemplates a cross-promotion with Cartoon Network is the more relaxed rules governing advertising in the region. In the United States, such a campaign would definitely get the red light, notes Manuel Reyes, chief marketing officer with Internet startup Eritmo.com. "There's a clear separation between advertising and children's programming to the extent that on air you even have to announce there's an advert coming," says Reyes, formerly regional director for Starcom Latin America, the media-buying arm of advertising agency The Leo Group.

"In the U.S., this kind of campaign would not be permitted because of children's guidelines enforced by the Federal Communications Commission. Latin America is a more unregulated frontier," adds a senior advertising executive at a Nintendo rival. The executive suspects that Europe is as strict as the U.S.

Continued on Page 10

Future-Proofing Britain's BARB

BY ELENA BOWES

Change is the word for Caroline McDevitt, the recently appointed chief executive of BARB. That organization, more formally known as the Broadcasters' Audience Research Board, produces quantitative data for audience measurement of commercials and programs throughout the United Kingdom.

And since McDevitt's arrival, it has expanded its shareholder base, launched the world's first digital-television-viewing audience panel, put its new five-year research contract up for bidding, hired a new management team, and — if that's not enough — moved into a new office.

McDEVITT

In the past, many in the British TV industry considered BARB a place of bureaucratic administration, hidden away in a dusty old government-like building on the outskirts of London. "It would have made you slash your wrists when you walked through the door," quips McDevitt, who is described as a "down-to-earth, no-nonsense doer" by BARB board member Nick Phillips. He's also director general of the Institute of Practitioners (IPA), which represents U.K. advertising agencies.

BARB had long been controlled by the duopoly of the British Broadcasting Corp. and Independent Television (ITV) terrestrial channels. But the company's shareholder base broadened last August to include the IPA, broadcasters Channel 4 and Channel 5, and British Sky Broadcasting Group plc. And the pressure mounted for BARB to become more commercially focused.

To that end, McDevitt has hired two key managers (a large number considering BARB only has six employees) with expertise in TV research and broadcast finance. In September, the company relocated to modern, warehouse-style offices in central London.

BARB's business at hand is to decide by next month which research companies will win its new Audience Measurement Contract. The current contract, worth about $US17 million annually, is jointly held by Taylor Nelson Sofres and RSMB Television Research. It provides minute-by-minute data on channels transmitted in the U.K., be they satellite, cable or terrestrial, analog or digital. The BARB panel consists of about 4,500 households representing a cross section of demographics, and is possibly the only continuous audience-measurement service in the world that is run by a organization representing not just commercial networks, but also agencies, advertisers and public broadcasters.

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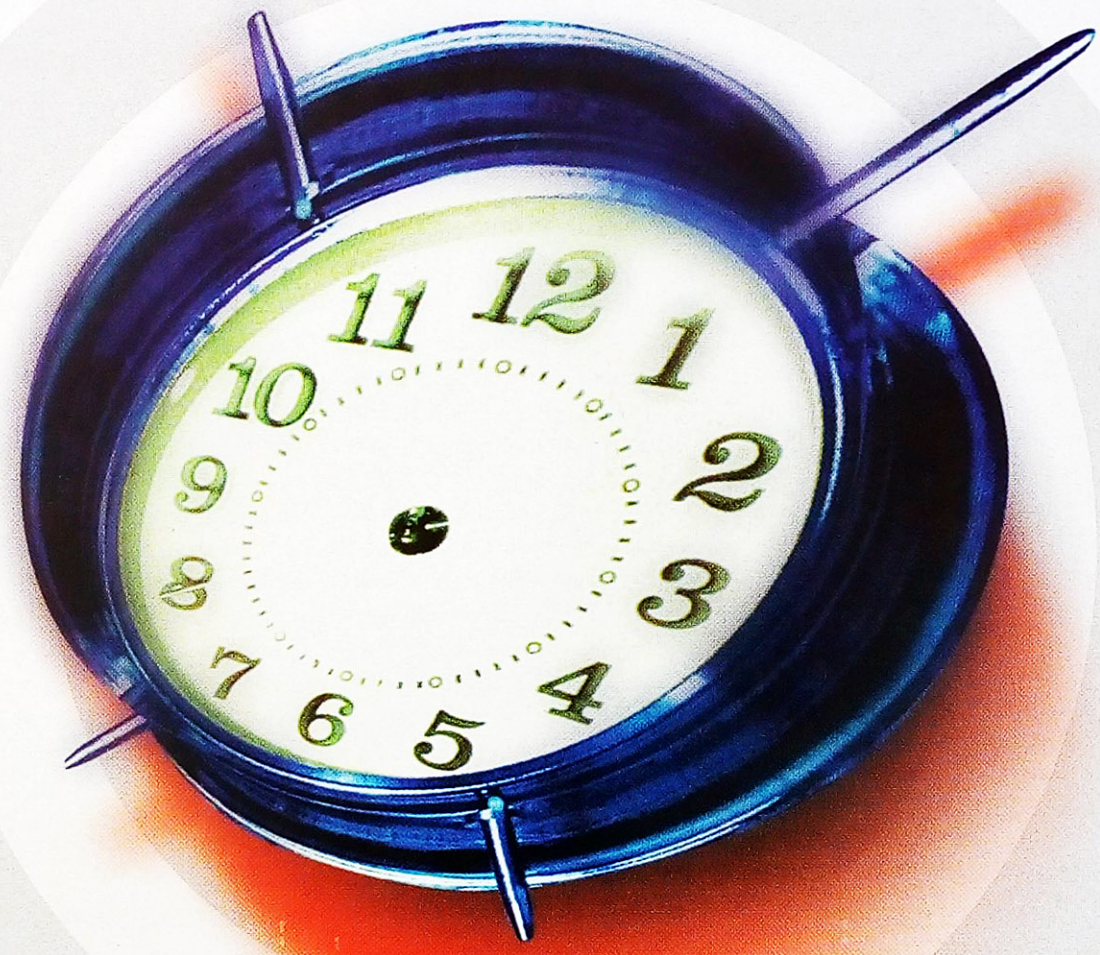

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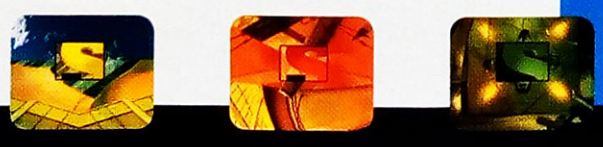

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HotSpots

Calmer Waters Ahead for Poland's Ad Adventure

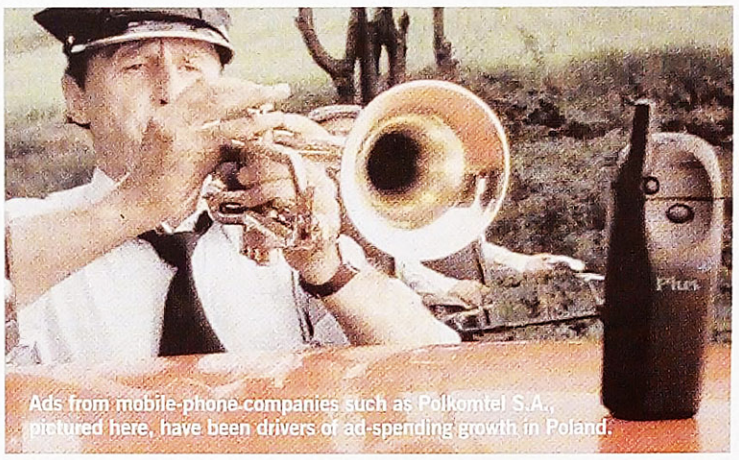
BY THERESA AGOVINO

Think of the Polish television advertising market as a lavish affaire, where the Beluga caviar has been devoured, and there is going to be stiff competition for the salmon roe. The party's not exactly over, but it has lost some of its cachet.

Television ad spending in Poland is slowing after years of explosive growth, forcing cable and satellite channels, along with their terrestrial peers, to become more creative and flexible to draw clients. Experts predict that promotions and reduced rates will define Poland's television-advertising market this year.

"We are going to do everything to put ourselves in the best position possible, as will everyone else," says Andrzej Muszynski, director of advertising sales for POLSAT, one of the country's four terrestrial stations. "It is going to be very competitive."

Television advertising spending is expected to grow about 25 percent this year. That is certainly extravagant by Western European or U.S. standards, but rather miserly compared to Poland's recent surges. Back in 1993, total advertising spending leapt 109 percent. Television accounted for 70 percent of the spending. Meanwhile, from 1994 to 1997, total ad spending grew by 50 percent or more each year, with television representing at least half of the expenditures. Figures for last year aren't available yet, but experts say ad spending probably increased 35 percent, with television again representing 50 percent of the outlays.



Ads from mobile-phone companies such as Polkomtel S.A., pictured here, have been drivers of ad-spending growth in Poland.

"The market here is slowing down," says Greg Paine, president of Universal McCann, the media-buying arm of advertising agency McCann-Erickson. "There will be growth, but spending levels are not going to increase as rapidly as before."

The calmer spending pace is a result of the maturing Polish economy. During the early 1990s, consumer-product companies poured money into television advertising campaigns as they tried to establish brand recognition and loyalty in the newly capitalist country that boasts the largest population in Eastern Europe. Later in the decade, the advertising bonanza was aided by Poland's improving standard of living. Automobile manufacturers such as General Motors Corp., mobile-phone companies like Polkomtel S.A. and banks all shelled out vast amounts to attract the attention of Poland's emerging middle class and affluent citizens.

Last year, pension reform was introduced and the country's fledgling private pension funds produced huge campaigns to attract members.

"Advertising spending reaches a ceiling where it just doesn't expand any more than the growth of the GDP. It reaches an equilibrium," says Jakub Benke, media-buying director for Initiative Media Warszawa, a media-buying firm.

The equilibrium is dovetailing with a rise in the number of cable and satellite options available to advertisers. In the last two years, for example, Poland has become home to two direct-to-home (DTH) platforms.

In addition, it saw the formation of ART TV, a cooperative of independent cable operators that provides advertisers with access to 1.2 million homes, about one-third of the cable market. The group is negotiating to add another 1 million homes.

Cyfra+, one of Poland's two DTH platforms, is preparing to sell advertising space this year on its two locally produced channels. Cyfra+'s digital-program director Jacub Brzeczkowski says the timing is appropriate because now the platform's programming is also available on cable, so it reaches about 500,000 households.

Wizja TV, Poland's other satellite platform, has been selling ads since the fall of 1998. Last year, Wizja used some of its advertising space for promotions with other companies. For example, over the summer it joined forces with a car dealer. The dealer advertised on Wizja and people who bought cars from the dealer received a Wizja decoder as part of the purchase.

Similar deals are planned, says Bob Block, senior vice president of marketing and sales at the Polish operations of United Pan-Europe Communications N.V., Wizja's owner.

"We look at these promotions as a way to increase all of our businesses — advertising and subscription sales," he says.

Of course, it will be difficult for cable and satellite stations to prove their worthiness to advertisers, because only 5,000 homes are monitored by the two different firms that record television viewing habits in Poland.

And many of those homes don't have cable or satellite, thus shrinking an already small sample. "It is very hard to accurately report who is watching cable channels," says Jane Parry, the London-based research director for The Media Edge Europe, the media operation of ad agency Young & Rubicam Inc.

Still, television is likely to remain the medium of choice for advertisers, because it is efficient and inexpensive. Benke says the cost-per-thousand rate for an average TV spot in Poland is $US2.50, while the European average stands at $US6.

According to a study by McCann-Erickson, television captured 55 percent of advertising spending in Poland in 1998, while print garnered 28 percent and radio attracted 8 percent.

That doesn't mean television stations can rest easy. POLSAT's Muszynski promises to continue offering flexible arrangements to advertisers. And, he says, the station is targeting clients that don't traditionally advertise on TV. ■

Animated,

Continued from Page 8

The consensus, however, is that a campaign of this nature must be treated with kid gloves. Brand dilution is a big concern.

"You have to be careful that the equity you've built in your brand doesn't get over commercialized," says Valerie McCarty, vice president of marketing and communications for kids' channel Nickelodeon Latin America, one of Cartoon Network's major competitors.

It is a point very much appreciated by David Levy, Turner's president of international advertising sales and Latin America. "We have our own internal policies, which are very stringent. Everything we do is to enhance the brand, and nothing to damage it," he says.

Nevertheless, it is unlikely that cross-promotions of this kind will become the norm throughout the region, believes Reyes. "The limiting factor here is that there has got to be a real strategic affinity and fit worked out between the agency, client and vendor," which is difficult to achieve, he says.

Nintendo game characters such as Tiny Kong, above, are making some new friends at Cartoon Network Latin America.

"And after you've offered this to one client, you can't go offering the same to a second and a third," without diluting the benefit to all parties concerned. ■

BARB,

Continued from Page 8

"She has a massive job now, overseeing the new BARB contract," comments Jim Marshall, CEO of MediaVest Worldwide, the media-buying arm of The McManus Group of ad agencies. "TV is changing so dramatically."

Part of the dramatic change is the advent in the U.K. of digital television, which now accounts for nearly 10 percent of all viewing in the country. With that in mind, BARB last November launched a digital-viewing panel, or sample, that currently monitors 286 BSkyB digital households.

Says Tess Alps, executive chairman of The New PHD Group, the U.K. media arm of ad agency BBDO: "Digital channels will live and die by the quality of the BARB contract."

McDevitt notes that BARB has to ensure that the new research technology can be adapted to the changing behavior of viewers. "We're asking what the [research] technology can measure when [the medium] isn't currently available," she explains. "So we've gone through pretty vigorous engineering tests. We really have to believe that whatever hits people's screens or mobile phones, there should be a solution to measuring it."

McDevitt freely admits that the research and technical sides of her new job that "hit me like a planet."

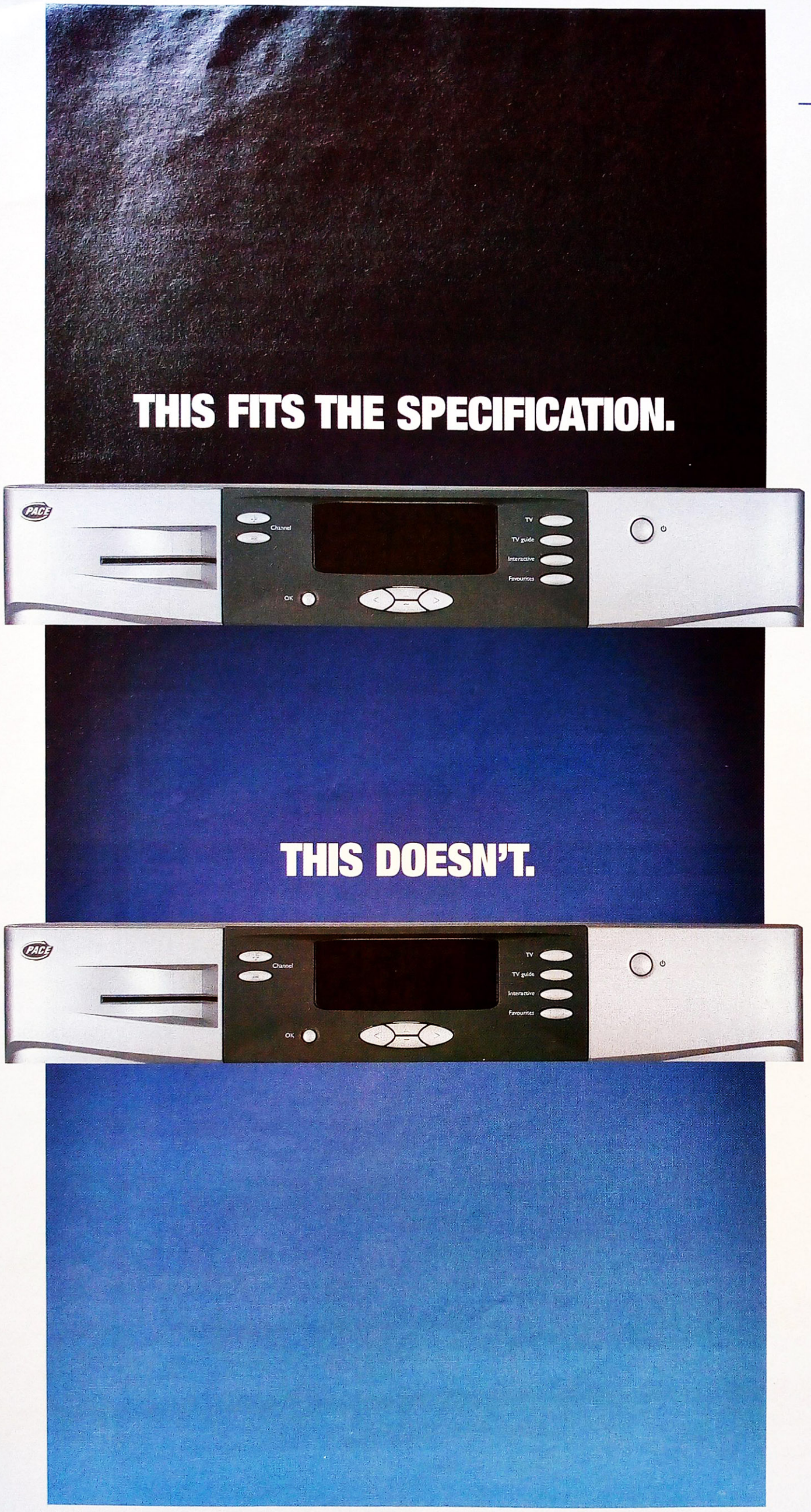
"The last word you would use to describe Caroline is 'researcher,'" notes MediaVest's Marshall. "When you mention research, people tend to switch off; they won't with Caroline," echoes Graham Duff, CEO of media firm Zenith Media.

Some might argue that the trickiest aspect of McDevitt's current job is not the technical or methodological skills required, but having powers of diplomacy with the board.

"We're not an easy bunch to manage. We all have different objectives, but we've made huge strides with Caroline," says Nick Milligan, who sits on the BARB board when he's not directing sales at Channel 5.

While BSkyB is represented on BARB's board, and the country's satellite-delivered channels generally subscribe to BARB data, cable systems don't participate. "They feel they own software that will provide them with [audience data] that [advertisers and agencies] will want to buy from them. But it's not independently produced data. That is what sets BARB apart," McDevitt says.

As exhilarating and challenging as her new job is, McDevitt is planning a Caribbean escape as soon as the measurement contract is awarded next month. "I'd like to go somewhere hot and far away from phones and faxes." Hopefully, the TV reception will stink too. ■



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A Tale of Two MSOs

By Juan Buenaventura

EPM-TV:
Powered for Growth

MEDELLIN is something of a dream market for an industry like cable television. The city is Colombia's second largest, lying in the heart of the industrial and commercial hub of Valle de Aburrá, which boasts some of the highest standards of living in the country.

But EPM-TV's good fortune doesn't stop there. It was born with a silver spoon in its mouth as a unit of Colombia's largest public utility company, which supplies water, gas, sewage and telephony services to households nationwide. And its prospects grew considerably brighter last November when it won a license to operate systems throughout Colombia's western region, which includes major cities like Cali, Mani-zales, Pereira, and Armenia.

Needless to say, the company faces no shortage of challenges. It is grappling with a harsh economic climate and political turmoil heightened by its presence in areas often associated with drug trafficking. It is an issue EPM-TV programming director Yelsy Pérez refers to obliquely when she describes 1999 as "difficult for us, for Medellín."

More problematic than cocaine cartels, however, are the growing pains of an industry struggling to become legal. While EPM-TV has always been legal, it is buffeted by competitors that are in an extreme state of flux. According to EPM-TV, some 90 percent of the market in the Medellín area is still in the hands of companies that fall into a few different categories. They include some informals that are in process of becoming legalized, other informals that are exiting the market, new licensees that have never been in the business, and so-called community-based systems set up at the grass-roots level to distribute unscrambled channels and Colombian broadcast networks. However, some informals continue to "hide" by acquiring community-licenses, while operating as commercial enterprises. "The mar-

Continued on Page 42

Downtown Bogotá

IF THERE WERE EVER A YIN AND A YANG

of the Colombian cable industry, they are Empresas Públicas de Medellín-TV S.A. (EPM-TV) and the newly licensed Cable Centro S.A. in Bogotá. They've been part of two different camps within Colombia's cable industry, factions so estranged and divided, it was as if the Berlin Wall stood between them.

In the past, Cable Centro was known as an "informal," part of the large mass of Colombian cable operators that didn't have a license to operate. All told, informals served as many as 4 million households, according to industry estimates. The lack of a license certainly didn't hold Cable Centro back. The company mushroomed from a feisty neighborhood informal into Bogotá's largest pay TV provider in a matter of 10 years.

On the other side of the wall sat EPM-TV, which has always had a cable license. It projects the stellar image of a company backed by Colombia's largest public utility.

Both companies came out as big winners when Colombia's National Television Commission finally embarked on a mammoth licensing process. As a result, Cable Centro and EPM-TV are both expanding from local to regional multiple system operators (MSOs). In many ways, they exemplify the state of the industry as a whole, and help illustrate why Colombia is one of the few places left on earth where the basics of cable TV are still being written.

A participant in Medellín's Festival of Flowers

CABLE CENTRO:
Getting Some Respect

THE TERM "street fighters" springs to the mind of one media analyst, when asked to comment on Cable Centro S.A. And it's easy to see why. The company grew up as the archetypal tough kid-on-the-block, a one-time informal operator with a reputation for aggressive pricing and an appetite for takeovers.

Yet this cut-and-thrust company, comprised of several systems clustered in central Colombia, is entering a very different phase in its transition into a formal, fully licensed business. Late last year, it won the highest number of points — 906.8 out of a possible 1,000 — among the eight bidders chasing four regional licenses in central Colombia. That allowed it to beat out such favorites as state broadcaster Inravisión and state telco Empresa Nacional de Telecomunicaciones, as well as Venezuelan MSO SuperCable.

The central zone is by far the most lucrative region in Colombia. It not only includes several important medium-sized cities, but above all encompasses Bogotá's 7.5 million residents, which include the most sizable middle- and upper-income sectors of the country. "We've done a great deal until now. But this is absolutely nothing compared with what lies ahead of us. Now the real work and the big challenges begin," says Henry Reyes, Cable Centro's vice president. Those challenges include a great deal of expansion.

"We are already in the largest markets in the central zone. And if there are any sizable markets left, we will cover them in the following years," Reyes adds bullishly. On Jan. 1, Cable Centro's partner operators and the systems it recently purchased converted their ongoing operations to the new company name in 21 cities. And the company plans to expand into 81 cities over the next five years with an estimated investment of $US100 million in both acquisitions and in technology.

That will involve upgrading its Bogotá network. "We are planning to start offering pay-per-view, pre-

mium channels or even Internet in July," says José Ocampo, Cable Centro's new-business director. However, he emphasizes that will only happen in selected areas of Bogotá, and only after a careful market evaluation. Currently, the company's subscribers do not have addressable set-top boxes. Planning ahead, nonetheless, Cable Centro has already teamed-up with one of several local companies with a view to venturing into Colombia's incipient electronic-commerce business. However, this bright new future may lead to a financial crunch, say some. "Most former informals, like Cable Centro, confront a difficult dilemma," says the international media analyst, who requested anonymity. "Sometimes a company has to choose between buying operations or investing in technology. It's either one or the other."

One way to solve that dilemma is to attract foreign investment. Despite optimism, the company has yet to find such a partner. Another challenge for Cable Centro is to overcome the legacy of informality. The company has signed contracts with international programmers such as Twentieth Century Fox and Turner Broadcasting System Latin America Inc., and is now seemingly coming clean on the issue of piracy.

The Television Association of Programmers (TAP) Latin America is among those tracking the piracy issue for all Colombian companies very closely. Says TAP executive director Mary Pitelli: "Colombian informal operators had a chance to pay a settlement fee. Some did, some didn't. We will study each case individually." She refers here to a process by which former informals are being urged to pay up for past (unpaid) intellectual-property rights.

Cable Centro vice president Henry Reyes (right), with company director for new markets José Antonio Ocampo (far left) and president Alberto Rincón are hiking fees and "educating" consumers.

Motion Picture Association lawyer Guillermo Zea confirms that Cable Centro currently has no legal problems in this regard, but adds the operator "may have problems in the future," if individual legal actions are brought. For this reason, he urges, "it would be prudent for them to pay their settlement fee with the MPA, because it would give them a sort of legal shield for the future."

However, the mood among international programmers is overwhelmingly one of forgive and forget. After all, with lackluster subscriber growth in Latin America last year, they are eager to find new outlets for their products. Newly licensed informals "have been pretty well disposed toward us. We're optimistic about the reception," says Juan Carlos Urdaneta, senior vice president for distribution at Turner's Latino division. There are no bad feelings toward ex-informals. "It is in the past. It's not like we believed that they were stealing from us. We were not in a position to sell to them, and they were not in a position to work with us as informals," he said.

But this kind of olive-branch attitude is not necessarily shared among Colombian companies. Ex-informals are under close scrutiny, especially from competitors. "Many keep pirating signals, and keep offering low and unfair prices, anything from $US2 to $US4. The National Television Commission must strictly enforce the law," says Juan Carlos García, general secretary at TV Cable of Bogotá. That company still has two lawsuits pending against Centro Cable's main backer, Servisatélite, not for pirate theft, but for unfair trade practices in the past, such as price gouging.

But Cable Centro has been hiking its subscriber rates recently, doubling its monthly fees to 25,000 pesos ($US14) from 13,790 pesos ($US7).

Its initial sign-up fee ranges from 28,000 pesos ($US16) to 48,000 pesos ($US27), depending on the area; affluent subscribers in northern Bogotá generally pay more. Monthly fees may even increase to 35,700 pesos ($US20) per month. However, "It will be important to educate the subscriber so he understands the process," says Reyes.

That is certainly the kind of responsible, professional image Cable Centro wants to project. But it remains to be seen how it manages the transition from rough, tough street fighter to respectable pay TV player.

> "It would be prudent for [Cable Centro] to pay their settlement fee with the MPA."
>
> *— Guillermo Zea, lawyer, Motion Picture Association*

'Rules of Thumb' for Colombian Networks

Origins play an important part in any company's development. Historically, Colombia's formal operators have been more worried about the fast growth of their subscriber bases than in implementing state-of-the-art technology. The uncertain status of informals meant that few have chosen to undertake risky investments. Formal operators, on the other hand, were more interested in adding value to their network through addressable set-boxes and, in some cases, high-speed Internet access.

tech Spotlight

These are general rules of thumb, but in many ways they help explain the current cable architecture of both EPM-TV and Cable Centro S.A. Cable Centro may now be a fully licensed, legal entity, but there are telltale signs that it started off life as an informal. The company does not yet offer addressable set-top boxes to its subscribers, which means that pay-per-view and premium channels are not part of its programming lineup, which consists of 49 channels.

EPM-TV has been a formal since its inception, and has been somewhat ahead of the curve on the technology front. EPM-TV offers 60 channels, and is planning to add premium and pay-per-view services.

EPM-TV has a 750-megahertz, fully bi-directional hybrid fiber-coaxial (HFC) network, which passes some 172,000 homes targeting middle- to higher-income subscribers. The network also has an additional 40,000 homes passed with a 450 MHz network that's just 10 percent bidirectional. It serves a lower- to middle-income demographic.

In its home of Bogotá, Cable Centro also operates a 750 MHz HFC network, and claims some 350,000 homes passed. Company engineers state that currently the network has 40 percent fiber in its main rings.

All the companies that presented business proposals to the National Television Commission last year had to comply with minimum technical standards and present a plan for the future development of their networks. Cable Centro promised to develop a 100 percent bidirectional network.

In appraising the Colombian market, Piero Falci, director of Latin American marketing and sales support at Motorola Inc.'s Broadband Communications Sector, has some advice: "A correct strategic vision would be the use of broadband to reach the consumer, and provide him with all kinds of services... To stay only with television would be short-sighted. It is perfectly possible for small operators in Colombia to have wonderful, bi-directional HFC networks with multichannel television, and some additional consumer-oriented services. It's not that difficult. Basically, it depends on management."

— Juan Buenaventura

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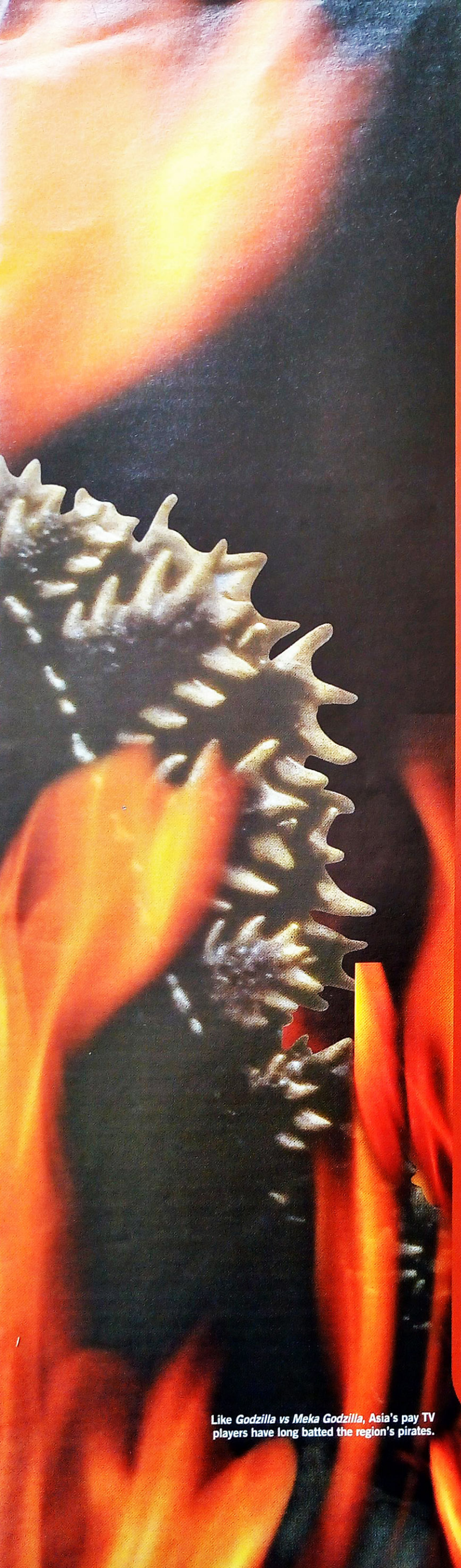


Like *Godzilla vs Meka Godzilla*, Asia's pay TV players have long batted the region's pirates.

asia's MULTI MONSTERS

The many forms of piracy in Asia don't make for a pretty picture right now. But industry complaints are resulting in some action.

By Magz Osborne

It was raining like a ton of bullets when Sam Ho got the call he was expecting from a special corruption unit within the Hong Kong government early one evening. Within hours, 200 armed officers set up roadblocks throughout the Special Administrative Region and raided five locations. The midnight attack reaped some $HK800 million ($US10 million) in equipment and pirated optical disks, a blanket term in the region for CDs, DVDs and digital-video disks known VCDs that are popular in Asia.

Ironically, the scene could have come from a Hollywood movie — the very product that Ho aims to protect. A longtime auxiliary police chief in Hong Kong, Ho now services as an assistant director of the Asia-Pacific anti-piracy unit within the Motion Picture Association International (MPA-I), which represents major American program distributors. And he was working with Hong Kong's Independent Commission Against Corruption.

The problem of program piracy is far greater than just the optical-disk business. Indeed, illegal transmissions are a bit of an open wound for Asia's cable and satellite industry, and something that just won't heal and disappear — no matter how many years pass. Observers say it's difficult to estimate the industry's total losses to signal piracy. But in India, the country with the most severe pay TV piracy problem, more than $US35 million was lost in 1998 alone. That's an estimate from one of Ho's associates, Tarun Sawney, the MPA-I's deputy director of anti-piracy in the Asia-Pacific region.

"Asia has more cable piracy then any other continent, and the problem has been acutely accentuated by the region's economic turmoil," says Sawney.

No matter what the actual losses are, "there is clearly sufficient concern for the industry to seriously consider concerted action," says Paul France, president of CNBC Asia and piracy spokesman for the Cable and Satellite Broadcasting Association of Asia (CASBAA), a panregional trade group. "The situation is being seriously exacerbated by" direct-to-home (DTH) platforms, he adds.

DTH is just part of the problem. Piracy has turned into a multi-headed monster in the region. Throughout Asia, DTH-decoder boxes from some national platforms are used illegally in neighboring countries. Tampering with smart cards is big in Thailand, while in India the

illegal redistribution of movies is a common means of winning the battle for cable supremacy among street-fighting mom-and-pop operations. In the Philippines, the under-reporting of subscriber numbers by cable operators is particularly problematic.

Yet there are those who refuse to take the situation lying down. Among the dragon slayers is HBO Asia, with recent investigations that resulted in the deactivation of illegal decoder boxes in the Philippines. Star TV, one of the region's largest program groups, is conducting extensive research into the extent and forms of piracy, and solutions to it. And much-needed legislation has been passed or is pending in key markets.

Some networks say they have piracy stings in the works, and that there are collaborative efforts between programmers and government authorities currently underway. All of this could mean that anti-piracy action is set to increase. And not a minute too soon. Among the top-priorities is Thailand. There are five forms of piracy there, according to Simon Ragless, Star TV's head of commercial operations, who has conducted extensive research into the problem of piracy in several Asian markets. They include the unauthorized redistribution of unencrypted channels; the practice among some commercial establishments of illegally using decoders from the operator United Broadcasting Corp. Group (UBC); the illegal use of decoders from platforms in neighboring countries, such as Malaysia's Measat; pirated viewing cards programmed or bought outside Thailand that will activate the UBC system; and genuine viewing cards tampered with to make them work even though a legitimate subscription has been canceled.

"UBC is well aware of the issues, and we have offered to help them in any way we can to combat this problem," says Ragless.

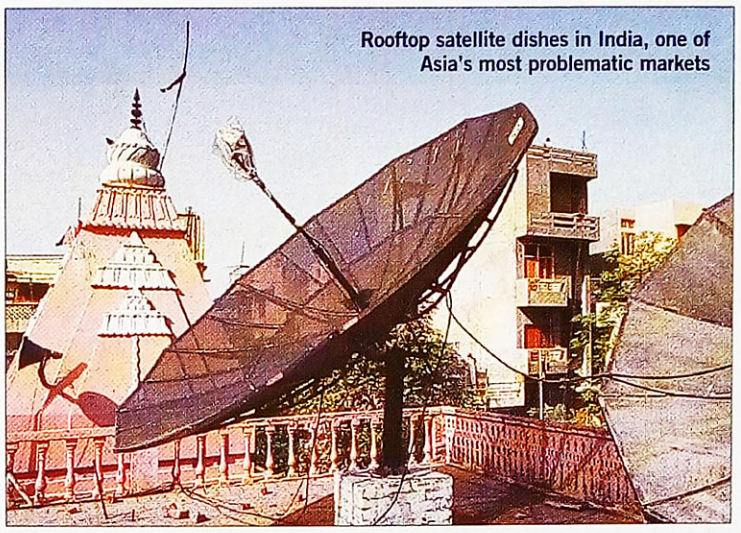
Thai pirates may be the most creative in their approach to piracy, but India gets the prize for the most piracy in the region. Still, there has been some progress in Mumbai. Recently the MPA-I instigated a criminal raid on Win Cable, a system set up by former executives of the multiple system operator (MSO) In Cable.

Most cable systems in India are legally registered under the Cable Television Networks (Regulation) Act of 1995. These systems usually show channels that legally downlinked from satellite. However, some are apt to create their own original channels and program them with movies without securing the rights from their distributors.

Sawney readily admits that eradication is next to impossible. "They soon restart. After raids, they do become more cautious," he says. "They reduce the number of transmissions, which are made at different times and do not announce the movies." According to Sawney, the pirates don't directly receive extra revenue for the illegally transmitted movies, because Indian cable systems generally charge subscribers a flat rate. However, "they do it to keep their business, and be one up on the competition," he says.

Sawney adds that the culprits include some of India's largest operators. He points the finger at Siti Cable, "one of the largest [MSOs], which claims prevalence in 83 cities ... reaching 3.2 million subscribers and 15 million viewers." Not only has that company been raided by, but so has In Cable.

That operator is India's second largest MSO, reportedly reaching an estimated 2.7 million homes in nine cities, and owned by the Hindujas, a conglomerate controlled by the richest Indians that have settled in the United Kingdom.



Rooftop satellite dishes in India, one of Asia's most problematic markets

Despite repeated attempts, the Indian operators couldn't be reached for comment.

But, says Sawney, these Indian operators are tracked down through investigations based on information received from cable homes that receive illegal transmissions. Investigators reach the particular control room responsible for the illegal transmissions, and those found responsible are slapped with charges of copyright infringement. In India, that means six months in prison and a fine of 50,000 rupees ($US1,100).

Although the legislation in India is sufficient, its enforcement is hampered by corruption in the system, particularly when the culprits may be both wealthy and well connected. "The police deliberately leave out important evidence. Then the public prosecutor goes slow on the case," says Sawney.

Anti-piracy action is likely to get special attention at event in another market next month, the Philippines. The Philippines Cable Television Association (PCTA) conference yielded lots of discussion on the subject last year, when the CASBAA board held a series of discussions on the predilection of Filipino operators to under-report subscriber numbers.

Observers conservatively estimate that at present, Filipino operators only declare 30 percent of their customers. But the situation could be far worse. According to the newly appointed chairman of CASBAA, MTV Asia's president Frank Brown, TV networks are considering the idea of lowering their per-subscriber rates to system affiliates in return for more realistic subscriber numbers. Although fine in theory, it is the premium-priced, commercial-free channels, like HBO Asia, that are under particular pressure to lower rates, and it is unlikely they will do so any time soon.

In speaking of the situation in the Philippines, France notes that views on piracy vary quite a bit, depending "on where you sit in the mix. To some, under-reporting is a necessary evil to help operators pay for expensive Western programming, whilst making charges affordable to local subscribers. To others, under-reporting is still piracy that should be punished the same as any other such crime. You can't expect a Rolls Royce service at a Ford Prefect price." France's oft-quoted analogy refers to the rock-bottom rates that Filipino subscribers pay: $US8 for 50 channels that would cost $US40 to $US50 elsewhere in the world.

The crux of the problem from the point of view of Filipino operators involves the local distributors that represent overseas programmers, says José Lobregat, PCTA chairman and external-affairs director at Pilipino Cable Corp., the Philippines' largest MSO. "Once programmers have accepted the numbers quoted to them by distributors and entered into a contract, it is too late for them to complain about under-reporting," says Lobregat. "If they feel they are being cheated, they should not enter into agreements with distributors they feel are being dishonest."

Further perspective is offered by Chris Wanden, director of affiliate sales at Discovery Networks Asia: "When the market first opened up six years ago, very few believed the [subscriber] numbers that were being reported from the Philippines, but had no means of verifying them." Now networks have access to audit figures, and of late there has been a spate of finger pointing by Philippine operators and distributors, who are accusing each other of inaccurate figures.

According to Lobregat, the focus shouldn't be on under-reporting, but rather DTH piracy. "Programmers should be looking toward those with whom they have no contracts and from whom they gain no revenue. Details of the offending parties have been listed for CASBAA, but there has not been as much action as the PCTA would have liked," he says.

Pirates with little regard for intellectual property and even less

Continued on Page 42

TECH TALK *Fingering the Culprits*

HBO Asia's opaque fingerprinting feature helps identify signal pirates unbeknownst to viewers, according to Vincent Teo, vice president for technology and operations at HBO Asia.

Provided by Motorola Inc.'s Broadband Communications Sector, the system is also referred to as obscure or covert fingerprinting, and it's used not only in Asia, but also the United States and Latin America, according to HBO.

The detection system in Asia is activated from HBO's Singapore headquarters. It monitors the whole population of decoders that are capable of descrambling HBO's signal in the region and are distributed by legal means — until they are smuggled abroad. HBO is capable of retrieving a hidden unit-identification number in the video information within each box. That's the clever part. The number is not actually visible to the viewer. HBO's crew goes into markets where piracy is a particular problem, hole up at hotels, videotape HBO's signal off the hotel TV sets and ship them back to headquarters. There, the unit-identification number is revealed, and HBO's team can determine if, say, a Tawanese direct-to-home (DTH) signal is getting play in a Philippine location. If so, bingo: The unit is deemed a pirate and can be switched off.

Sunset in Singapore, home of HBO Asia. The programmer is tapping technology to darken pirates' prospects.

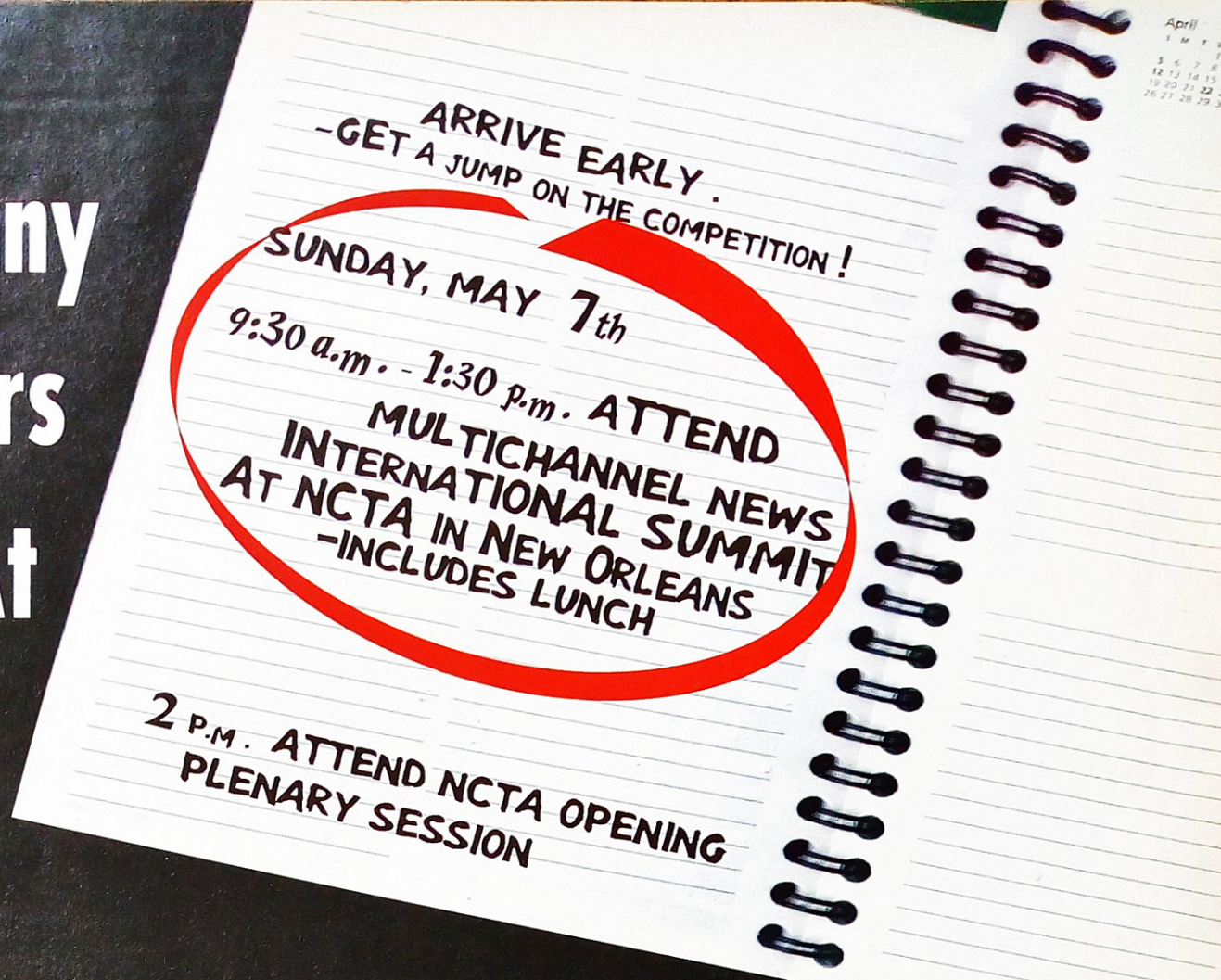
There are similar systems that use so-called clear, or overt, fingerprinting, through which the unit-identification number is visible on the screen. The pitfalls of these are that legitimate subscribers may well find their viewing pleasure is marred by unwanted figures displayed on the screen. Secondly, fingerprinting-savvy pirates can superimpose black boxes over the identification numbers — a practice that is particularly rife in India, according to Teo. This is not possible with opaque fingerprinting, as the number's on-screen whereabouts can be altered regularly.

Another problem with clear fingerprinting is that if pirates see that such a system has been activated, they will temporarily discontinue their transmissions to prevent the videotaping of their signal.

According to Dicky I. Di Nata, president-director of Indonesian DTH platform Indovision, a clear fingerprinting system is used by the Indonesian direct-to-home platform Indovision. That means of detection is used to stamp out the illegal use of its decoder boxes in neighboring countries.

— Magz Ozborne

Why So Many Global Insiders Arrive Early At The NCTA



Each year, many of the industry's top communications executives arrive early at the NCTA Convention to attend the *Multichannel News International* Summit. Held right before NCTA's opening plenary session, International Summit 3 will include:

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The success of the BBC's commercial unit is curtailed by losses at its flagship channel, BBC World. Can the news network find its equilibrium in an increasingly competitive environment?

The Importance of Being BBC World

By David Brown

When the British government enriched the coffers of the British Broadcasting Corp. last month by increasing the license fee that all citizens of that country must pay to receive its public channels, it delivered a special caveat. In return for the funding, earmarked for the Beeb's digital strategy, the government said it expected better value for its money.

There's little wonder that the new BBC director general Greg Dyke has promised he has no intention of letting the government down in that regard. And that could have special consequences for BBC World, the flagship global-news channel of the BBC's commercial arm BBC Worldwide Ltd.

The channel, sprung from the hip of the BBC's venerated worldwide radio service of the same name, is seen as the company's crown jewel. And yet it continues to rack up hefty losses as it plays a tough game of catch-up with its global rival CNN International, and struggles against a growing band of local-news channels along the way.

To be sure, BBC World is a commercial channel, funded by advertising and subscription fees. It receives no money from the license fee. But BBC Worldwide, which oversees 11 fully or partially owned channels, including BBC World, is under pressure to increase its contribution to the BBC's finances.

That's not to imply that Worldwide as a whole is not profitable. In the 1998-1999 fiscal year, it made a cash flow contribution to the BBC of £81 million ($US129.6 million) on revenues of £420 million ($US672 million). However, the three fully owned channels — the only ones with an impact on BBC's financial books — racked up a loss of £16.4 million ($US26.24 million) on revenues of £31 million ($US49.6 million). And nearly all of the red ink, or £15.6 million ($US25 million), came from BBC World.

It's been nine years since the launch of the channel — dubbed BBC World Service Television when it debuted across Asia and the Middle East in 1991 — but breakeven is still another three to five years away, according to its managing director Patrick Cross.

In comparison, the only other news channel that competes with BBC World on a global level, 15-year-old CNNI, has been operating in the black for about five years. It launched in Europe a full 10 years before BBC World, giving it a strong first-mover advantage in the part of the world BBC calls home. Conversely, in CNNI's home territory, the United States, BBC World's programming only receives partial distribution as a block on some public broadcast TV stations and BBC America, a channel owned by Worldwide, but distributed by Discovery Communications Inc.

Because BBC World is so late to the party, there's little wonder that CNNI is ahead in distribution, with the ability to reach some 151 million households, versus BBC World's 24-hour channel universe of some 71 million homes.

But BBC World has more than just the global CNNI to worry about. There's a growing band of local-news channels around the world to contend with, along with peripheral competition from financial-news channels, such as Bloomberg Television and CNBC.

Take Latin America, for example. There, BBC World competes for eyeballs and operator carriage with the likes of CNN en Español, as well as CNNI, CBS Telenoticias, Grupo Televisa S.A.'s Eco, Brazil's Globo News and three services of Argentine origin: Crónica TV, CableVisión Noticias and Todo Noticias.

A few news channels have fallen by the wayside in that region of the world in recent years, and things are getting tougher and tougher in Europe as well. There, BBC World markets itself everywhere except for the United Kingdom, where the BBC's publicly funded News 24 service does the job. Network rivals include British-based

Sky News, currently available in some 80 million households in 50 countries. France also has two domestic news channels, LFI and i>télévision.

Add to that CNN-backed channels in Germany, Spain and Turkey, along with pan-European service Euronews, which provides six different language versions across more than 40 territories and is on the verge of breaking even.

If that weren't enough, Britain's Independent Television News group also plans to launch a domestic news channel in partnership with top cable operator NTL Inc., though there's been no suggestion that it will get international distribution.

Given all of this, along with Dyke's mandate, shouldn't the BBC just throw in the towel on the World service and concentrate on moneymaking propositions? That certainly was a topic of industry conversation when the BBC's annual report was published last June.

"There has been speculation in the press over the future of BBC World, but the answer is no. BBC World is not closing," says Cross. "There has been unanimous support from the [BBC] governors and the executive committee."

Clearly, there are egos to consider, and a lofty *raison d'etre* as well. As BBC Worldwide strategy director Jeremy Mayhew explains it, "Despite the very considerable losses of BBC World, we remain committed to it because of our historically very strong commitment to the delivery of high-quality, impartial news throughout the world."

That's important now more than ever as the BBC develops its digital strategy involving the delivery of news over linear TV and radio channels, as well as by online services. "We are increasingly seeing our news services as a whole, and viewers may increasingly see them as a whole as well. For the BBC to abandon one key component out of the digital environment would be odd," says Mayhew.

He also notes that BBC World also provides a "spillover advantage" to the other BBC-branded channels, which include BBC America and BBC Prime. It helps build brand recognition, particularly as the news channel is often the first service to touch down in overseas markets, clearing the way for others in the group.

And the numbers are starting to show signs of improvement. While the channel did post a loss in the last fiscal year, the £15.6 million ($US25 million) represented a 36 percent reduction in red ink from the previous year. And that trend is expected to continue. Revenue from both advertising and subscription fees is up substantially year on year.

According to Cross, advertising revenue in January rose 150 percent compared with the same month in 1999. Overall, the monthly comparisons average at least a 125 percent improvement. Cross attributes this to his decision to set up advertising-sales offices specifically dedicated to BBC World in several countries. Prior to that, BBC World's advertising was sold by agents, many of whom also represented the competition.

"The advertising-sales offices have more than paid for themselves, and I am confident that we can increase advertising substantially over the next two or three years," Cross says. "We are also getting good organic growth in distribution, with subscription revenues up by 22 percent year on year." Part of that rise is attributable to new distribution deals in such countries as Canada and Taiwan.

And there are indications that the number of people tuning into BBC World is on the rise too, at least in Europe. Last year's European Media and Marketing viewing survey found that BBC World's audience had increased by a third over 12 months. "We are behind [CNNI] in Europe," Cross says, "but we are catching up."

At the same time BBC World increases its revenue, it's paring costs by simplifying the schedule and cutting out expensive 90-minute news-analysis programs that didn't attract much of an audience.

"Our research told us that the audiences didn't like the 90-minute programs. Cable operators and advertisers didn't like them. And yet they were the most ex-

pensive to produce," says Cross.

From April, the schedule will be based on a 30-minute news bulletin every hour on the hour, with analysis and features in between, except when a breaking story demands continuous news coverage. The new plan "is all about organic growth and fine-tuning the schedule, plus a bit of regionalization to meet customer requirements better," Cross says.

But will "a bit" of tailoring to fit regional and local-news interests be enough? CNNI clearly sees localization as the future, with three locally tailored services up and running and more on the way. But CNNI is already profitable and has wider distribution. It can, therefore, more easily afford to invest in regionalizing its programming.

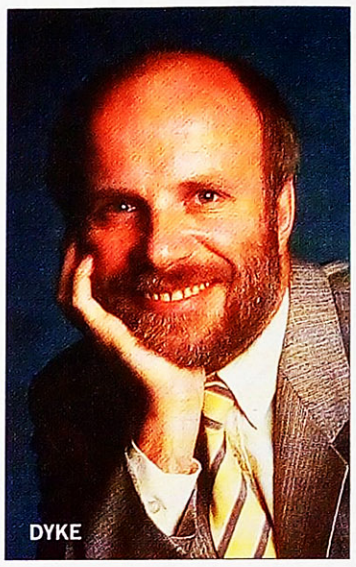
With a much different set of economic circumstances, BBC World appears caught in a Catch-22 situation. "Until you have built up advertising revenues and distribution, it is difficult to justify the cost of making local programs," explains Cross. And yet some would argue that its economic returns are limited by not moving more aggressively into the local trend.

As far as CNNI president Chris Cramer is concerned, "it's not a tenable business to try and do a single global-news channel in any language. The days of low-hanging fruit are over when it comes to panregional or international broadcasting."

BBC World has already seen the rewards that can be reaped from localizing its channel. The one region where it is well ahead of CNN is India, where it programs local news in the second half of every hour. In that market, BBC World's distribution in 8.5 million homes is nearly two-and-a-half times that of CNNI. The only other market where BBC World has dabbled in local content is Japan.

Any further localization is likely to take an approach similar to that taken in India. "We don't want to copy CNN. One of our unique selling points is that we provide a global perspective to the news," says Cross.

Clearly, all of the news channels feel they distinguish themselves from their competition in marked ways. For example, in the obviously biased opinion of Nick Pollard, head of Sky News, "We


DYKE

benefit [because] people think that CNN International is still a very American style of presentation and still has a lot of American content, even though they use non-American presenters as often as they can."

And when it comes to BBC World, "Our output tends to be a little more homogeneous," says Pollard. "BBC World seems to look like it's a mixture of things from different services, chopped up and put together in one service. It does not particularly have a flow to it."

As far as Euronews managing director Martyn Wheatley is concerned, his service is "a European channel made by Europeans. CNNI's regionalized offer is more limited than ours. BBC World has a British-European perspective. We have that, but also ... a Continental European flavor, not Anglo Saxon."

Observers who aren't connected to the channels see their differences as well. In the opinion of Jane Perry, the London-based research director of Young & Rubicam Inc.'s media unit The Media Edge Europe, both the CNN and the BBC brands are strong, particularly among traveling executives, and they are the most attractive channels for pan-European adver-

Continued on Page 39

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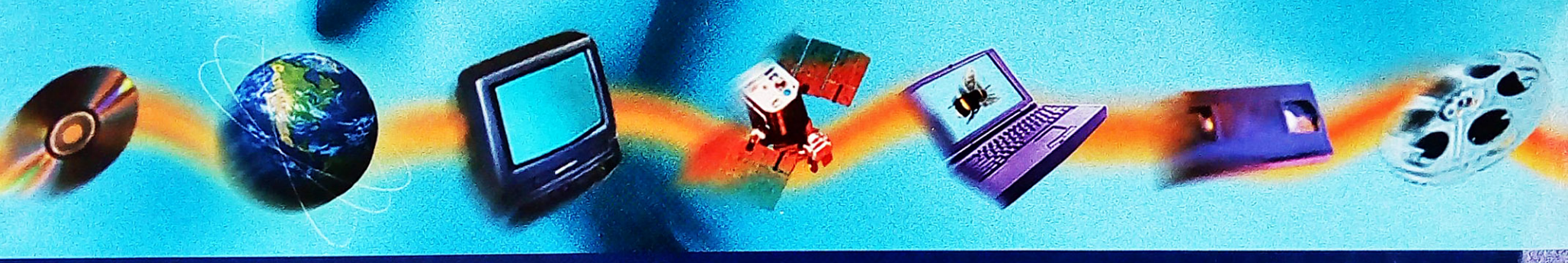

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NOTE: In order to designate their corporate parentage, three holding companies are duplicated at the top of the chart, among the channels.

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With three rounds of licensing for specialty-channels behind it, Canada now has a wide spectrum of networks designed for multichannel television. This chart shows a simplified breakdown of what companies own those services. A tip of the hat to Susan Trott of Ottawa's TJT Design & Communications for providing the extensive research.

Viewer's Choice	Canal Indigo	Family Channel	Teletoon	CTV Newsnet	TalkTV	Outdoor Life	The Comedy Network	CTV SportsNet	Corus Entertainment Inc.	Treehouse TV	YTV	Country Music Television	Telelatino	Home Theatre	MovieMax	Super Channel	Report on Business TV	The Sports Network	The Discovery Channel	Reseau des Sports	Canal Evasion	Prime TV	Météo-Média	Weather Network	Women Television Network	CPAC
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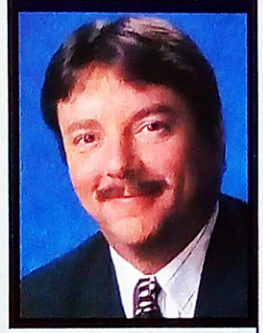
Big Payoffs in A Very Small World

BY ROGER BROWN



IN SYNC

You know that feeling you get when you're far away from home, and you meet someone for the first time, only to find out they're from your same town? Or when you're introduced to someone and, upon talking, discover that you have several mutual friends?

It's that same "small world" feeling that seems to be permeating through today's communications industry.

Cable companies that saw themselves as mere transmitters of entertainment-grade video are finally seeing themselves as providers of a full suite of communications services, including voice and high-speed data. Those that were operating in a single market have since grown to become more powerful by expanding their reach, sometimes going beyond traditional metropolitan boundaries to encompass wide regions. But even that greater scope pales in comparison to those companies that are going global.

Signs of this global awareness are everywhere, even among equipment suppliers. Companies like Pace Micro Technology plc and Mindport IBS, flush with success in the United Kingdom, Europe and Asia, have begun to invade the fertile, yet extremely competitive, North American marketplace. At the same time, U.S. powerhouses such as Motorola Inc.'s Broadband Communications Sector (formerly General Instrument Corp.) and Scientific-Atlanta Inc., are beginning to make inroads into the United Kingdom and the Far East, among other areas.

Meanwhile, in the telecommunications world, in which voice and data have been the focus of service providers, deregulation has opened the market to new players. In North America, the large regional Bell companies have successively cannibalized one another, resulting in just three survivors.

Furthermore, upstarts like Qwest Communications Inc. have grown quickly, offering services at lower costs than incumbents, while at the same time providing faster, better customer service.

Taking the trend one step further are British Telecommunications plc and AT&T Corp. They had the foresight to realize that by working together (in conjunction with other partners), they can construct a global communications network.

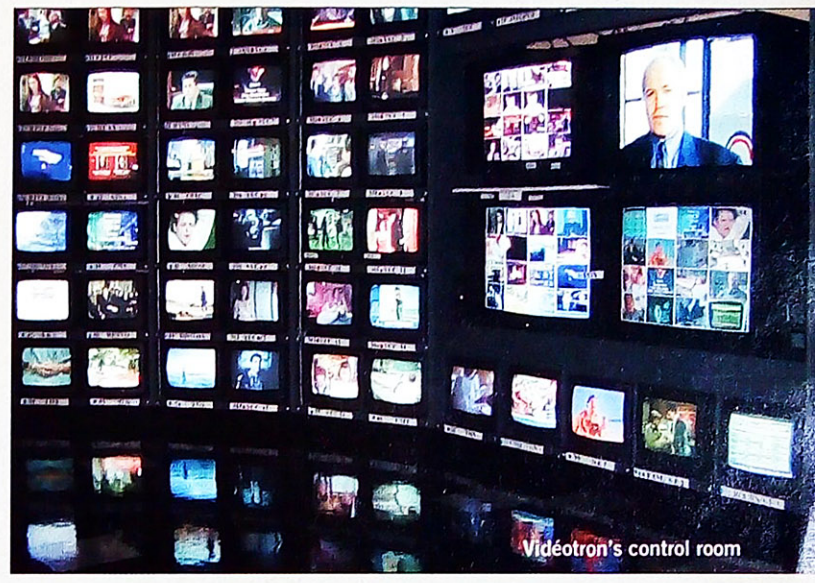
Called "Concert," this network intends to exploit the burgeoning Internet-protocol-based market. Through hundreds of land-based fiber nodes, a web of undersea cables and a relationship of more than 50 local distributors, Concert aims to provide a full suite of communications services.

Soon, communications providers will have global scale, global reach and global presence. It may not be long before corporate faces that once had only local influence and recognition will be known to travelers around the world. Those companies are hoping that the "small world" effect will mean a big payoff for them.

Canada's Mega Marriage

Rogers and Vidéotron Combine Their Technology Advances

BY JAMES CARELESS



Vidéotron's control room

Officials at Bell Canada, the country's largest telephone carrier, must have felt as if they were sitting squarely in the crosshairs when Rogers Cablesystems last month announced plans to acquire Quebec's top cable operator Le Groupe Vidéotron Ltée.

Small wonder. Not only does the deal between Canada's No. 1 and No. 3 multiple system operators (MSOs) create a powerhouse boasting 3.7 million subscribers, but it solidifies strong clusters in the highly populated provinces of Ontario and Quebec, Bell Canada's telephony turf.

"We now have a footprint very much matching Bell," says Nick Hamilton-Piercy, Rogers Cablesystems' vice president and chief technology officer. "That makes marketing, and competition, and everything much more viable."

Guy Beauchamp, president and CEO of Vidéotron Communications — which includes Vidéotron's cable-TV, Internet-protocol telephony and Internet access divisions — agrees. Thanks to the takeover, "we'll have the strength and the market power to deal with Bell Canada," he says.

When it comes to strength, both MSOs are bringing a lot to

Continued on Page 36

Land Rush Reaches the Headend

BY JEFF BAUMGARTNER

SeaChange video servers at U.K. MSO Telewest

As cable operators around the world roll out relatively nascent services such as high-speed data, digital video, interactive television and video-on-demand, they stand to encounter an inevitable space crunch as equipment for those services is shoe-horned inside headends that are literally busting at the seams.

Some of the more advanced cable operators around the globe — such as NTL Inc. and Telewest Communications plc in the United Kingdom, United Pan-Europe Communications N.V. (UPC) in Continental Europe and Australia's Cable & Wireless Optus Ltd. — could face a potential land grab at the headend within the next year. But others that continue to remain in video-only mode

Continued on Page 34

BROADBAND INTERNATIONAL

European Operators Bank on System Upgrades

The 'if you build it, they will come' mindset drives investments by major players

BY CRAIG KUHL

New technologies advancing the distribution of Internet services, high-speed data and interactive applications for video, voice and data are beginning take a real hold at select European cable systems, signaling the emergence of true multi-service communications companies.

As a result, the promise of new revenues from the bundling of telephony, digital television, Internet and data services is pushing those companies to rebuild, upgrade and overhaul their existing plants to include new technologies with the potential of leading them to the financial promised land.

And despite obstacles — including complex regulations, construction delays and the scarcity of qualified engineers, technicians and crews to build the networks — the march toward advanced consumer and business services in Europe is underway, with a handful of companies leading the parade.

United Pan-Europe Communications N.V.'s Austrian system, UPC Telekabel Vienna, and Switzerland's Cablecom Group are two operators upgrading their infrastructures to offer video, voice and data services, and within a year are expected to be virtual players in the race to bring the "triple play" of services to market.

"We aren't telling our non-subscribers to get connected yet, because that's not a convincing argument. But we want to be the best provider of state-of-the-art voice, video and data, and we will have all of them available in the next 12 months," says Telekabel marketing director Martin Wilfing.

Telekabel is upgrading its plant to 860 MHz with all five of its headends connected to a "super trunk" that passes 1,000 homes per fiber node. It will also offer a digital-video system this year, and by mid-2001 aims to provide video-on-demand (VOD) service.

Since early 1999, Telekabel has offered UPC's Priority Telecom telephone service using Nortel Networks Corp. switches and Arris Interactive LLC hybrid fiber-coaxial technology. It's also an affiliate of chello broadband N.V., UPC's high-speed Internet platform.

The rebuild hasn't been an overnight success, however.

"We have always built the infrastructure to 860 MHz, and the most important part of the upgrade was to bring in the fiber and overlay our coax plant. We also had to change out all 45,000 one-way amplifiers and install a return path," says Telekabel director of system engineering and operations Wolfgang Urbauer.

Telekabel's unique frequency, Urbauer adds, is what makes the network special. "Our frequency split is now 5 to 65 MHz on the return path, and 85 to 862 MHz on the forward path. We may be the first operator in the world having this frequency split in real operation," he says.

Urbauer also notes that the network is using 96 fiber cables in a fully redundant underground-fiber system and is amid a complete rebuild of its powering system. "We removed all the power supplies from the cellars and put them into street cabinets for immediate access. And all the fiber nodes, headends, switches, videoservers, SDH transmission equipment and our server farm have battery backups as well," he says.

The real test will begin once the technology is fully deployed to allow video, voice and data as bundled services later this year. At that time, customers will have the final say about just how successful the upgrade is. Wilfing, however, is upbeat about its chances of success.

"We surveyed the market and customers told us they liked the 'triple play' service and liked the idea of buying services from one company. Our strategy is to sell as many services to each subscriber as we can," he says.

About 50 percent of Telekabel's current subscribers buy more than one service, Wilfing notes, with the other half buying only telephony, video or Internet service. Next up for Telekabel, he adds, is digital-video distribution. "Our digital launch will begin at the end of this year and will include VOD, but we must first consider the economics."

The economics for digital TV appear to be good, according to The Strategis Group, a communications research firm. For instance, Austria is expected to see pay TV penetration reach 55 percent by 2007, with revenues of $US408 million, Strategis forecasts. Switzerland is projected to have pay TV penetration of 81 percent and revenue of $US702 million.

In addition, 50 percent of Europeans are expected to be online by 2005, according to a recent report from Forrester Research Inc., an Internet-research firm.

That's good news for Cablecom, the largest cable operator in Switzerland — with 1.4 million subscribers — and the country's second-largest Internet-service provider. Cablecom in December agreed to be bought for $US3.7 billion by NTL Inc., Britain's top MSO.

Over the past two years, Cablecom has spent more than $US250 million deploying fiber deep into its network, with a fully redundant national fiber backbone running to local nodes. It serves an average of 1,200 homes per node, then breaks into a bi-directional, tree-and-branch system.

Cablecom's plant is currently 25 percent two-way interactive, and by the end of this year will be upgraded to 60 percent two-way capacity. It's expected to be fully two way sometime next year. The system built to 860 MHz.

"Once we are fully two-way, we'll have fantastic capacity and will be able to offer phone services once the switches and nodes have been deployed," said NTL director of corporate development Aizad Hussain.

Despite the rosy outlook for additional services such as telephony and Internet-access provision, obstacles remain. "The key pieces missing are the construction projects on the telephone side and resistance from the local phone company [Swisscom A.G.], which doesn't want us to offer phone service. But ownership is changing, so once we upgrade to two-way next year, it's just a matter of installing switches and nodes," Hussain says. Swisscom was an investor in Cablecom prior to agreeing to sell to NTL.

Cablecom's Internet-service business, SwissOnline, boasts a healthy penetration rate among cable subscribers, and has 140,000 customers, Hussain adds. Yet the addition of the third piece of the triple play is what's tweaking Cablecom's interest. "The telephone business is a 7.8 billion [Swiss] franc [$US4.7 billion] market, and we can get half with our 53 percent market share in 1.4 million homes. That's a fantastic opportunity," he says.

Yet with opportunity come challenges, and building a high-end network replete with world-class technology has its share of headaches. "Finding experienced people with good telephony experience, who can engineer and operate an advanced system like Telekabel's has been a challenge, and probably the biggest obstacle to building the system," says Phil Colby, vice president of regional telephony engineering for United-GlobalCom Inc., UPC's parent.

Colby was instrumental in constructing Telekabel's telephony infrastructure and shepherding the system into the bundled service market. Despite the inherent problems with upgrading a system, his take on bundled-services and the technology to deploy them, is that they are here to stay. "The strategy at Telekabel has always been to bundle the triple-play services, and it's 85 percent upgraded. Several other systems are now being built with the same design, but Vienna is leading the way," he says.

Yet standing in the way are some speed bumps. "Incumbent telephone companies don't want the competition, so it's been difficult getting access into local phone companies for termination of calls," he explains. "Subscriber education is another issue. Telekabel is offering phone service features customers haven't seen before, so we have to differentiate ourselves from the incumbent."

The gradual deregulation of services, he notes, should help the

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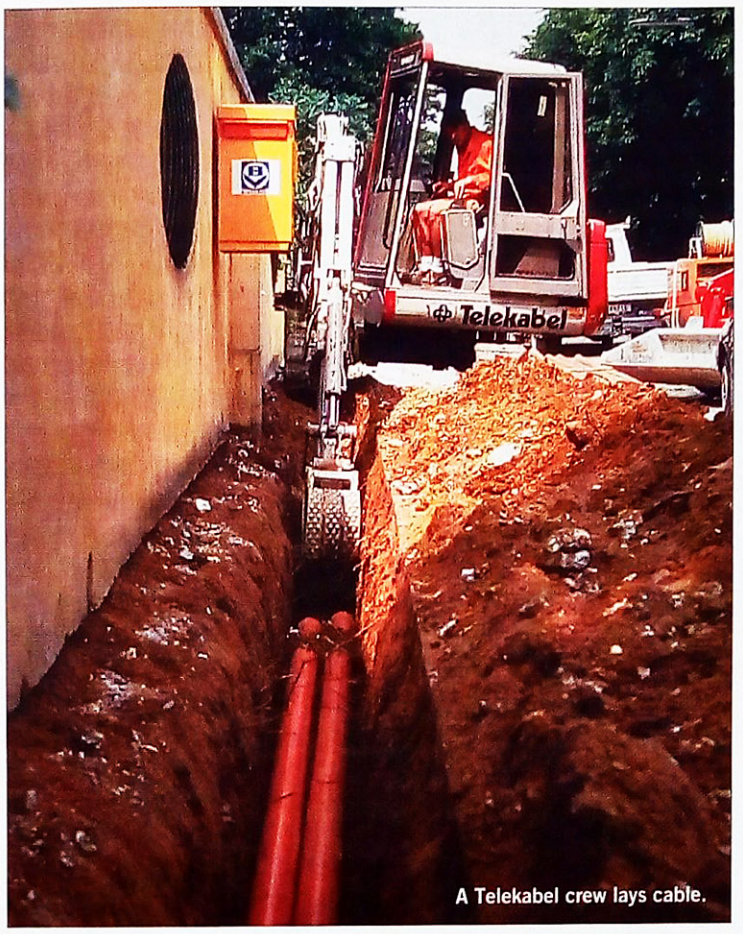

A Telekabel crew lays cable.

"Once we are fully two-way, we'll have fantastic capacity and will be able to offer phone services once the switches and nodes have been deployed."

— Aizad Hussain, director of corporate development, NTL Inc.

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*According to a November 20, 1998 report by RHK (Ryan, Hankin, Kent, Inc.) of South San Francisco, CA, USA.

Europe,
Continued from Page 28
operator. Colby notes that Europe is moving toward bundled services and single suppliers, but each country has different regulatory environments. However, many are open enough to let operators provide multiple services.

Once that happens, companies such as Telekabel that are deep into upgrading their plants are expected to be hard pressed to find the engineers and construction crews to actually build and manage the sophisticated systems. "Just trying to find people is almost impossible in upgrading Telekabel," says Colby. "That's the biggest obstacle today."

"Our digital launch will begin at the end of this year and will include VOD, but we must first consider the economics."

— Martin Wilfing, marketing director, UPC Telekabel Vienna

Most multi-service communications companies are aware of the problem. Even vendors are taking steps to fill the engineering and technician pipeline.

Com21 Inc., a supplier cable modems and other equipment to the broadband-access market, is opening a European development center in Cork, Ireland, and recruiting engineers from across the region to help develop its headend and modem systems. "We just couldn't find qualified engineers and technicians in the U.S., so we had to be proactive and interview people in Europe," says Charles Cheevers, general manager of Com21's European Development Center. "You have to go to them now. It's a new phenomenon." As a result, Com21 built an entire industrial park to house its development teams.

Rennes, France, which calls itself the European Silicon Valley, is offering development teams of

engineers to communications companies that are upgrading or rebuilding their networks. It boasts 34 technology research-and-development labs, 3,500 researchers and 60,000 students specializing in telecommunications and information technology.

For companies such as Telekabel and Cablecom, most of the construction and engineering will be completed by year's end, paving the way to what they envision as seamless networks offering offers video, voice and data.

"We always built the same infrastructure with the same equipment and the same actives and passives, so upgrading wasn't too difficult. It was just a lot of hard work, and by the end of the year, we'll have 800,000 homes passed on two-way plant," says Urbauer.

Just how much revenue Telekabel's and Cablecom's triple-play services generate remains to be seen. But one thing is certain: The technology driving bundled services will spread continue to expand across Europe. ■

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Around The World

ASIA-PACIFIC

Four Media Co., an advanced-television-service provider based in Singapore, said it installed two Broadcast MediaCluster video-server systems from SeaChange International Inc.

The systems are designed to provide video storage and delivery of MTV Asia and Nickelodeon Global Network Ventures programming to viewers across the Asia-Pacific region and Europe, the companies said. As an element of the expansion of Four Media's transmission facility for MTV Asia, SeaChange's equipment essentially will serve as a massive online video jukebox for the music channel by housing music videos, interstitials and commercials on video server systems made ready for immediate playback to five Asia-Pacific markets.

According to SeaChange, nearly 100 television operators around the world have selected its Broadband MediaCluster as their digital-video platform for commercials, programs and pay-per-view movies.

C-COR.net won a contract to supply Titus Communications Corp., Japan's second-largest MSO, with its FlexNet 900 Series, 862 MHz bandwidth RF trunks and bridgers, and its line of Navicor line extenders, for three new Titus projects. Titus plans to install the equipment this year for network builds in the Tokyo suburbs of Itabashi, Nishi-Tokyo and Sapporo. Titus currently passes 1 million homes in Japan, and plans to increase that number to 2 million when its network is completed.

Foxtel, Australia's largest pay TV provider with more than 570,000 subscribers, has selected OpenTV Inc.'s software as part of an effort to distribute and install roughly 100,000 set-tops with interactive capabilities on a year-to-year basis.

In a separate deal, Austar United Communications Ltd., the country's second-largest pay television provider, has selected the OpenTV platform for its initial interactive-TV service, which launched in March. Austar's ITV service will tout an interactive program guide and weather channel as it is deployed at a clip of 10,000 homes per month.

EUROPE

Terayon Communications Systems Inc. recently acquired closely-held Combox Ltd. for 775,000 shares of Terayon common stock, equating to roughly $US89.4 million when compared to the price of the company's stock when the deal

Continued on Page 36

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BROADBAND INTERNATIONAL

Full-Stream Ahead for Multimedia Content?

As bandwidth expands, so will programming. Standards again become an industry issue

BY HANK HOGAN

Somewhere between the typical 3 kilobit-per-second dial-up Internet connection and a two megabit-per-second full television broadcast lies the phenomenon known as Internet streaming media. As broadband access to the World Wide Web grows in popularity and availability, users who can connect at somewhere between 300 kbps and 1 Mbps are finding a wealth of information and educational content waiting for them.

"It's a new kind of experience. It's interactive. It does a lot of what interactive television has always tried to do, but it's on the Internet," says Tom Gillis, vice president of marketing at streaming-media infrastructure provider iBEAM Broadcasting Corp.

For carriers and content providers worldwide, streaming media presents both a challenge and an opportunity. The challenge lies in turning those streams into revenue. The opportunity is to tap into new markets.

"Streaming media is going to expand the reach of the traditional television and movie suppliers, because every one of the streaminsg media Web sites has their peak viewership during the regular business day," says Gerry Kaufhold, a multimedia and digital-television analyst with market researcher Cahners In-Stat Group, a corporate sibling of *Multichannel News International*.

As the name implies, streaming media is a data stream of multimedia content that is transmitted over the Internet. It can contain music, a movie, a news feed or an instructional video. Users can view or listen to streaming media as it arrives.

CAPTURING DATA

The process begins with the capture of multimedia data in a high-fidelity format. That data is then transformed into a lower bandwidth version that is of diminished, but still acceptable, quality. This is accomplished by exploiting human nature.

For instance, because a loud sound will often mask a soft one, compression takes advantage of that by eliminating soft sounds that appear shortly after a loud one.

On the video side, there are similar tricks that can be done visually. So, bandwidth requirements can be slashed by ten-fold without actually impacting perceived quality.

After the data is streamed out, a playback unit at the receiving end reconstructs the audio or video. The quality of the playback depends on the encoding and decoding algorithms, the transmission medium, and the physical player itself. Streaming media today is largely confined to personal computers connected to the Internet via dial-up modems. Despite these limitations, radio stations have shown that streaming media can be successful.

Israel's Optibase is developing streaming-video appliances such as its Medialink plug-and-play MPEG encoder featuring its ComMotion Pro 2 software.

The hope of companies such as iBEAM, Medium4.com Inc., RealNetworks Inc., Digital Island Inc. and others is that tomorrow will bring much more than audio streams. These companies predict a future that's akin to today's cable and satellite offerings — on steroids. For one thing, there could be a host of new, and highly targeted, programming.

"A pet channel on cable [costs] $US100 million to launch, [but] we can do a dog channel which costs us far, far less. And we can do a cat channel. We can do a reptile channel or whatever," says Medium4 president Graham Cannon.

These fledgling streaming-media networks also plan to insert ads that are specific to the viewer. Digital Island, for instance, has software that can determine the country from where an Internet viewer is logging on. "I can start leveraging that technology to start inserting ads that are unique to that geography," comments Tim Wilson, vice president of marketing for Digital Island.

The interactive nature of the Internet allows for more than just copying the cable industry's success, however. For instance, viewers can stop a video stream, click on the clothes worn by the actor or actress, and instantly be taken to a Web site to make a purchase. Then the stream, and the story, can be rejoined without missing any content. These capabilities open up new possibilities for targeted advertising, pay-per-view, and electronic commerce.

"You're going to be able to construct business models which will really work [and] are very similar to the ones that you have in cable today," says Martin Dunsmuir, general manager of broadband systems at RealNetworks.

The key phrases for that scenario are "going to" and "broadband," however. Most observers note that streaming will only be compelling when the video is of fairly high quality. The consensus is that a data rate of 300 kilobits per second will be a minimum to do this. That requires a broadband connection, which means either a cable modem or an digital-subscriber-line (DSL) setup.

BUSINESS APPLICATIONS

Unfortunately, there aren't very many homes that have broadband connections, compared to businesses, which often have T-1 connections to the Internet. That's why streaming-media viewing is highest during the business day. It's also why many of the streaming-media networks are targeting business-to-business applications or are paying companies to locate content on servers within a place of business.

As the number of residential viewers climbs, cable operators and DSL carriers aren't likely to be cut out of the loop. As a streaming medium, the Internet has a fundamental drawback. Packets can arrive out of order or be lost, requiring retransmission.

If the content is simple text, that's not a problem. But streaming media is large quantities of audio and video. To get around this, many content providers plan to locate servers near viewers, and then use a satellite link to blast content into the servers. To do this, streaming-media networks will have to deal with the owners of the connection to home users.

But first, standards have to be in place.

There are a number of competing encoding and decoding algorithms. Those with the largest installed base of players are from Microsoft Corp., Apple Computer Corp., and RealNetworks. Tens of millions of each of these software players have been downloaded and installed on PCs around the world. Therefore, many streaming-media companies supply content in all three formats, and viewers have to know which one they have in order to view or listen to anything.

As is the case in many of these struggles over standards, the fight is really over winners and losers in what's expected to be a booming market. Besides the standards mentioned so far, there are other algorithms, such as MPEG-4 and H.263, that are part of the fray. These are driven by international standards bodies, meaning they rarely change as fast as the more proprietary algorithms. But it also means the final solution is likely to come out of such efforts.

EUROPE'S EFFORTS

One such international effort is a European consortium, headed up by Israel-based Optibase Ltd. The consortium also includes Germany's Deutsche Telekom A.G., France's Aerospatiale Matra, and Telecom Italia SpA's research-and-development center. The group is developing a video gateway to ensure efficient solutions for end-to-end, constraint-free transmission of video over networks. The goal is to produce a system that runs on devices other than the PC.

"It is format-agnostic for Internet-streaming standards. The gateway is real-time bandwidth adaptive, from 8 megabits per second to 0.1 megabits per second, and is device transparent — cellular, [personal digital assistant], PC, etc.," says Limor Mund, marketing product manager for Optibase.

For those who dream of watching streaming media over a cellular phone, it will be some time before the standard is developed and deployed.

PCs, because of their ability to install a new player through a simple download, have a significant advantage over the traditional cable set-top box. Recently, however, Equator Technologies, Inc. of Calif. and Japan's Hitachi Ltd. announced a set-top box platform that supports software for television video encoding and decoding functions. "We're the only company in the industry offering a platform to the cable industry that will let them embrace all of those standards and be a bridge between today's MPEG-2 and tomorrow's mix of MPEG-2 and a variety of other services," claims Equator president John Setel O'Donnell. But it will be later this year, at the earliest, before such platforms are available to the general public.

As for the future, the initial market for streaming media may not be one that needs pictures at all. For instance, Amsterdam-based high-speed-access platform chello broadband, N.V. has 133,700 subscribers. Mike Smith, vice president of industry relations for chello, notes that the average broadband household spends 52 hours a month online versus 15 hours or so for those families with dial-up service. However, one of the strongest demands doesn't depend on video.

"The kids love music. And they are downloading records like crazy and using samples of music and streaming audio," says Smith.

That variety may ultimately be what distinguishes the future that is streaming toward us. ■

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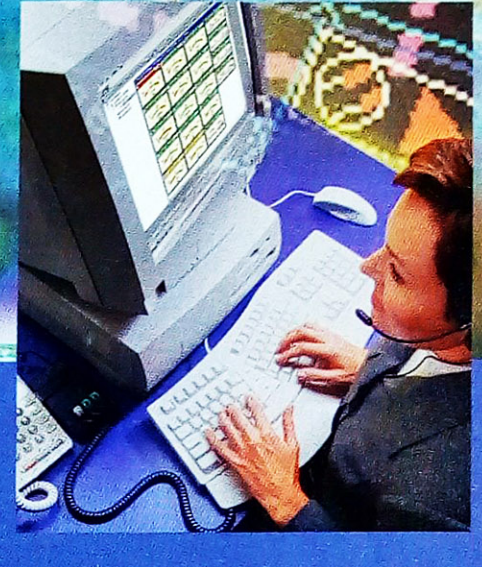

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Headend,

Continued from Page 27

with their plain-vanilla, antiquated systems could do themselves a favor by watching and learning while their peers grapple with the issue.

"Europe has more of a space constraint in headends than other places in the world, partially because the number of applications, the bandwidth and, therefore, the equipment required to handle those services in Europe are further along in their penetrations than they are in Asia and South America," says Tony Pierson, group product manager of Philips Broadband Networks' transmission group.

Though space constraints aren't an overriding dilemma for many multiple system operators (MSOs) in Europe today, they may become an issue as cable operators expand new services beyond test phases, and begin to achieve scale.

"Internationally, cable operators for the most part are in their early trial phases for many new services," says Branko Gerovac, vice president of research at SeaChange International Inc., a provider of digital-video systems for video-on-demand and ad-insertion systems. "We will probably see a space crunch a year from now as cable operators start moving towards more complete deployments."

VENDOR EFFORTS

In the meantime, says Gerovac, SeaChange and other headend-equipment vendors plan to help cable operators prepare for the inevitable space crunch with devices that absorb less and less real estate.

"There are some constraints to recognize in a server environment, because it requires a certain number of disks," he says, adding that

Harmonic's TRANsend digital broadband-delivery system

disk-density technology is improving very rapidly, and that SeaChange will continue to address cable operators' headend space limitations by adhering to a "faster, smaller, cheaper" equipment attitude. While video servers will always require their share of headend space, SeaChange's automation system already frees up some real estate, he says, because cable operators can survey their entire video server environment from one site.

Of course, telephony over cable has been popular in the U.K. for a number of years, and that experience could aid MSOs there as growing numbers of customers sign up for new services.

"In the U.K., cable operators have historically offered telephony service, but with the adoption of home PCs and the changing cultural climate with regard to advanced video services, we now see operators rolling out high-speed cable-modem services and video-on-demand," says Patrick Harshman, vice president of marketing at Harmonic Inc., a provider of optical-networking and digital-signal-distribution gear.

"Unlike in the United States, where the cable industry grew up entirely separately from the telephone industry, that wasn't really the case in Europe and a number of other areas outside of North America. That will help them ad-

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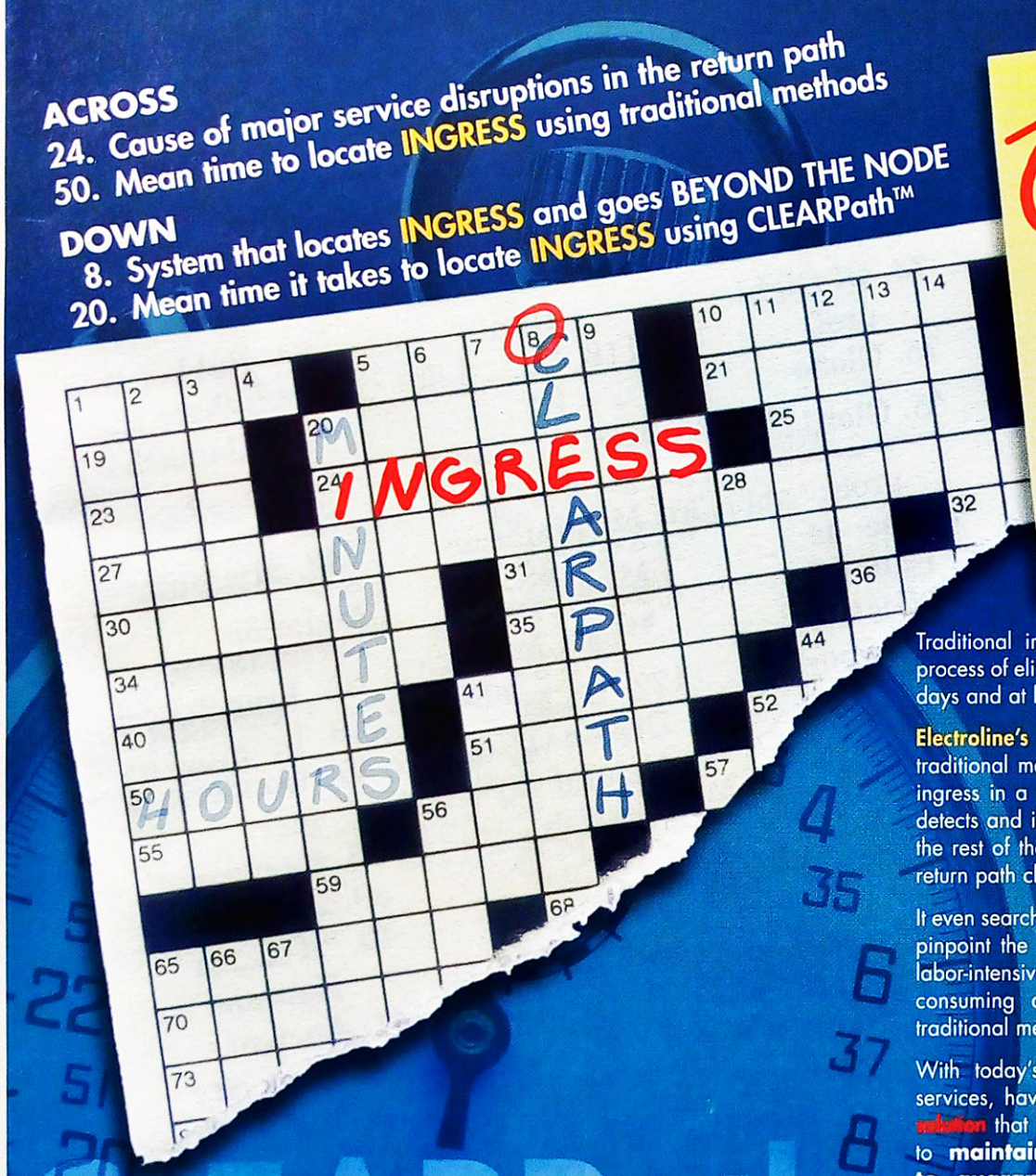

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dress future scale issues," explains Rich Peske, director of market development at DiviCom, which supplies middleware for a number of cable operators in the U.K., The Netherlands, Sweden and the U.S.

A TELEPHONY PRIMER

The cable industry's historical connection with telephone service and asynchronous-transfer-mode-based networks in the U.K. has, to a point, helped the market prepare for a land grab at the headend. "They tend to run their networks a little more like telephony networks, and have a little more room at the headend and use the concept of the super-headend with fiber interconnects to a number of regional headends," says Peske.

"While many cable operators in the U.K. know how to achieve scale with phone service, without putting too much stress on their headends, older systems may be too rigid for new equipment associated with new service types," explains Jock Anderson, senior vice president of Mindport IBS, a provider of systems-integration solutions. "As you add new services, some of the legacy systems are not that flexible. You end up putting in a second billing system to look after your Internet subscription or your e-commerce customers."

Harshman agrees. "A big issue raised by [cable operators] is that your telephony guy has nothing to do with your video-on-demand guy, who has nothing to do with your broadcast-digital-video-reception equipment. If an operator has three or four side-by-side management systems, it has an impact on efficiency and what's happening in the headend environment."

Though obvious headend challenges could be coming to the forefront very quickly in Europe, it appears NTL is a special case, and could be the best equipped to handle future headend space. That's because NTL has built a gigantic, new central headend that will serve as the core of a network that feeds digital and high-speed-data content over an extensive ATM network that winds through the entire United Kingdom.

However, a debate is brewing among cable operators in Europe regarding how much integration they will need for data and video services, according to Peske. "They're asking whether they should combine those two in the same equipment, or combine them at the network-management, provisioning or subscriber level. I don't think anyone has really decided that yet. They're still at the exploration stage," he says.

Preparing enough space for headend equipment and buying enough gear to provide future services like video-on-demand and high-speed data can create quite an enigma. Cable operators know they'll need the space, but typically they are hesitant to throw bags of money at equipment that won't provide a return-on-investment for several years.

NEW ARCHETECTURES

Such a conundrum exists in Germany and China, where the cable infrastructure is relatively basic, and systems for advanced services must be built from scratch.

"The operational overhead can be quite costly when you look at dense, urban environments like we see in large cities in China and in Eastern Europe," Harshman explains. Very often, he adds, there isn't expansive real estate available, so cable operators must rent facilities and build hubs in existing buildings. "Operators are pushing us and other vendors to find ways to eliminate the need for this multi-hub architecture and, to the greatest extent possible, consolidate all of the space requirements and all of the maintenance support to one central location."

Such an arrangement is being pieced together today by UPC,

Continued on Page 36

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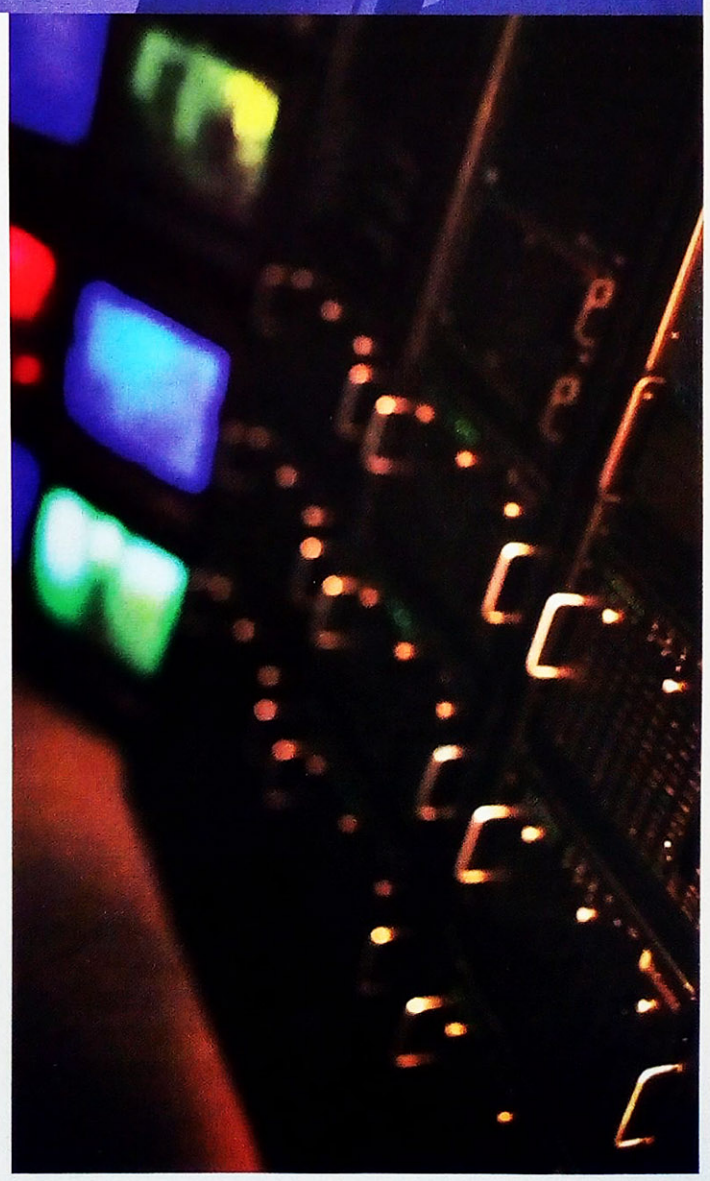

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Headend,

Continued from Page 35

which has several properties scattered throughout Europe. Under its network-distribution hierarchy, UPC maintains a central digital-video-content uplink, then beams content to remote sites that can be filtered by the local operator. AT&T Broadband & Internet Services maintains a similar arrangement for its Headend In The Sky (HITS) system in the U.S.

Still, cable operators must take their best educated guess about how to utilize the fiber that's already in the ground, and how many cable-modem termination systems and video servers they'll require down the road. One such solution is dense wave-division multiplexing (DWDM), which essentially shoehorns more capacity on a fiber network by segmenting traffic on separate wavelengths.

"A DWDM system that we've created with some future-proofing built in allows MSOs to build the plant with as much forward capacity as they need today," says Pierson. "That allows for a very graceful and cost-effective migration strategy to add capacity as required without losing or throwing away the initial investment."

While DWDM helps cable operators future-proof their networks for additional services, those that have launched new services still must deal with space constraints at the headend when scale becomes an issue. "I think a lot of them are struggling with that, and pushing that off to deal with down the road," says Peske. "There are companies that come in and say they can offer voice, video and data all in one box, which is great if you have a small system. Problems arise when you need to reach scalability, because, suddenly, you could overload that one box."

Though they aren't as early to the table as their peers are in North America and Europe, cable operators in Latin America and Asia will have an advantage in preparing for potential space problems at the headend, says Peske, because MSOs in those regions of the globe already will have taken most of the heavy punches along that learning curve. "They won't have to go through all of the different stages. Instead, they'll be able to go from an antiquated analog system and jump right into an interactive, digital system."

While cable operators in Latin American and Asia could learn of ways to save headend space simply by gleaning information from their international peers, they won't be able to avoid costly plant upgrades to activate two-way, interactive services.

"Cable operators in Latin America and Asia might have to lead with phone services to help pay for the infrastructure upgrades," Peske says. "Fortunately, on the headend side, that will centralize the facilities and allow them to roll out regional headends on an as-needed basis, but they've still got to put the fiber in the ground and build the systems out." ■

Around The World

Continued from Page 31

was announced. The deal would give Terayon access to Combox's line of cable modems and headend equipment based on Europe's Digital Video Broadcasting (DVB) standard. Terayon's product portfolio also includes the DOCSIS-certified TeraJet cable modem. "The Combox acquisition takes Terayon one more step toward our goal of becoming a one-stop broadband shop," said Terayon CEO Zaki Rakib in a prepared statement.

NTL Inc. said it will spend in excess of £200 million ($US316 million) to take televised racing into the digital age via exclusive deals with the British Broadcasting Corp., Channel 4 and NTL subsidiary Premium TV. Under terms of the 10-year deal, NTL will gain worldwide rights — covering terrestrial television, interactive TV and the Internet — to all racing at the Super 12 group of British racecourses. Premium TV also inked a similar deal with BBC Sport and BBC Worldwide.

Telewest Communications plc said it plans to deploy interactive-television services for its residential customer base using Liberate Technologies Inc.'s open-based TV software platform.

Telewest currently is selling digital television services to approximately 2.5 million homes, and anticipates rolling out interactive services during the first quarter of 2000. Liberate's software, which is housed inside set-top boxes, allows cable operators to offer customers a roster of new, enhanced applications and services, including e-mail, Internet banking and online shopping.

Com21 Inc. expanded its global presence when it opened the doors of its new European Development Center (EDC) in Cork, Ireland. Com21's EDC is slated to develop headend and modem systems for its ATM-based ComUNITY Access System, and products based on the DVB and DOCSIS standards. Additionally, the company said it will employ a pool of at least 50 engineers in the region to support the Irish government's initiative of attracting advanced technology vendors to the country.

LATIN AMERICA

United Pan-Europe Communications N.V subsidiary chello broadband N.V. said it plans to offer high-speed broadband Internet service in Latin America within the next year, augmenting its current footprint in Europe and Australia. To lead the effort, chello has tapped Fares Nassar as its regional director for the region. Using the same "local-language" approach it employs in six culturally-diverse countries in Europe, chello said it will design and deliver specialized broadband content in Portuguese and Spanish for Latin American markets.

Cablevisión, the multiple system operator owned by Teléfonos de México S.A. and Grupo Televisa S.A., said it will begin offering high-speed Internet access to its customers later this year. To that end, Televisa said it will spend $US170 million as part of a three-year plan to expand its network by 2,100 miles to 7,200 miles, and migrate 93 percent of its network to 750 MHz for digital-television services and high-speed access via cable modems. Cablevisión ended 1999 with about 400,000 basic subscribers, up from 275,000 a year earlier, and plans to expand beyond Mexico City.

Canada,

Continued from Page 27

their new company, one whose value is estimated at $US17.2 billion, and whose client base will include 260,000 Internet-access subscribers.

For instance, Rogers Cablesystems currently has about 2.25 million cable-TV subscribers in Ontario and British Columbia. Virtually all of these are served by upgraded two-way networks. "As far as the major urban systems, which actually is most of Rogers, we're at least 92 percent data and digital-ready," says Hamilton-Piercy. "We're now actually going the next step in our plant, which is increasing the forward bandwidth to at least 750 MHz, and in most cases 860 MHz. Before that, it was 600 MHz. This gives us more capacity to do more imaginative things with the digital-television services without impeding our existing analog services."

Vidéotron has 1.45 million cable-TV subscribers in Quebec. Although not quite up to Rogers in terms of upgrades, Vidéotron's networks are still in good shape, says Beauchamp. About 70 percent of Vidéotron's plant is two-way, with the rest scheduled to be upgraded by October. As for bandwidth, "in major systems like greater Montreal and western Quebec, we're up to 750 MHz," he says. However, in Quebec City and surrounding rural areas, Vidéotron only needs 480 MHz, because this region's French-speaking population isn't interested in English-language TV channels.

But will these two cable systems interconnect easily? Hamilton-Piercy says they indeed will and, in fact, already are. "You've got everywhere from our furthest west, which is Strathroy, [Ontario], to Vidéotron's furthest east, which is east of Quebec City, all linked together already," he explains. "So putting that into a more formal network, once the merger has happened, is not really a major task."

What does the merger mean for network consolidation, particularly centralized monitoring and control? On this point Hamilton-Piercy and Beauchamp are silent, and for good reason. Rogers' takeover of Vidéotron isn't a done deal. It still has to win approval from Vidéotron's shareholders in early April, and regulatory approval from the Canadian Radio-television and Telecommunications Commission. Experts predict that both will likely happen.

However, Hamilton-Piercy says that IP telephony, cable TV and Internet access can't "be run as autonomous organizations in various systems anymore. These have to have national monitoring and surveillance." In other words, there must be one central location that watches everything. Whether this means that Vidéotron's systems will be monitored from Toronto, where Rogers is based, remains to be seen.

In contrast, set-top technology is one area where few adjustments are needed, because Rogers and Vidéotron both have based their new services on the Scientific-Atlanta Inc.'s Explorer 2000 set-top box and S-A's PowerTV operating system. Of course, that could change. Last year, Rogers received a $US400 million investment from Microsoft Corp. as quid pro quo for Rogers adopting Microsoft TV operating software and Microsoft TV Server software for its set-top boxes. However, Hamilton-Piercy suggests that Rogers isn't necessarily committed to Microsoft. "We're working with both Microsoft and Liberate [Technologies]," he says. In testing both, Rogers is taking "a balanced approach, in case Microsoft can't pull off the ambitious program we want."

Beauchamp, meanwhile, notes that the company is pushing ahead with PowerTV. "I don't have doubts about Microsoft, it's just that we are so advanced with Power TV that it would be a shame for us to postpone the introduction of this product in order to introduce another one," he says.

Beyond all these strengths, Rogers and Vidéotron will bring a historical commitments to technical innovation to the merged company. Rogers Communications Inc. president and CEO Ted Rogers pioneered both FM radio and fiber-optic transmissions. Meanwhile, Vidéotron founder André Chagnon was considered ahead of his time with Videoway, an analog terminal predating the Internet that provided subscribers with electronic mail and online games. Although rendered obsolete by today's IP technology, Videoway is still being used by 240,000 Vidéotron subscribers, a testament to its sound engineering and user-friendliness.

In addition to these common strengths, the Vidéotron takeover gives Rogers two additional goodies: IP telephony, and a way into the potentially hostile market of Quebec.

For some time now, Vidéotron has led the way in Canadian IP-

telephony research. Issues associated with IP, including local-number portability and interconnections with Bell Canada's network, have been tackled. Vidéotron has also been staging a 200-home trial in Montreal.

That test reportedly has gone so well that Vidéotron plans to expand it to 2,000 users, with the aim of launching commercial IP telephony later this year. That's one year ahead of Rogers' pre-takeover plans, which may now be advanced, thanks to Vidéotron's telephony expertise. In turn, Rogers may be able to add a different twist to Vidéotron's IP-deployment plans.

"We now have a footprint very much matching Bell."

— Nick Hamilton-Piercy, vice president and chief technology officer, Rogers Cablesystems

Because parent company Rogers Communications also owns the wireless carrier Rogers AT&T, Rogers Cablesystems is considering using cellular as a backup for its IP-telephony network. Using wireless would enable Rogers to avoid adding backup-power supplies to its cable-TV plant, says Hamilton-Piercy. This could save Rogers a lot of money, and potentially speed up IP-telephony deployments in both provinces.

As for Quebec, "Rogers would have difficulty going in there with their own team and operation," says Peter Bissonnette president of Shaw Cablesystems G.P., Canada's No. 2 MSO. The obstacle is cultural: French-speaking Quebeckers are traditionally hostile to English-Canadian businesses like Rogers Cablesystems. In contrast, Vidéotron is a well-known French-Canadian brand. With Le Groupe Vidéotron CEO Claude Chagnon anointed as vice chair of the newly merged company, the new Rogers should have a sufficiently "Quebecois" image to thrive there — as long as it emphasizes its Vidéotron connection.

All told, the Rogers' Vidéotron takeover may be worthy of comparison to the AOL-Time Warner deal that inspired it, as Ted Rogers has admitted. Had Rogers and Vidéotron not followed suit, "we would be two slivers in the North American context," Rogers told reporters when the deal was announced. As two separate MSOs, "we would be less and less potent."

By combining, Rogers and Vidéotron have created an MSO that dwarfs Shaw's 1.8 million subscribers and one which alerts Bell Canada that a serious challenger has entered its territory.

Small wonder that Bell Canada parent BCE subsequently went on a buying spree of its own, swallowing up international carrier Teleglobe, taking a $US66 million stake in the Internet portal Lycos, and making a $US1.6 billion bid for CTV, Canada's largest private-television network.

With all this action, one thing is certain: Rogers' takeover of Vidéotron signals a new age of titans in the Canadian media. ■

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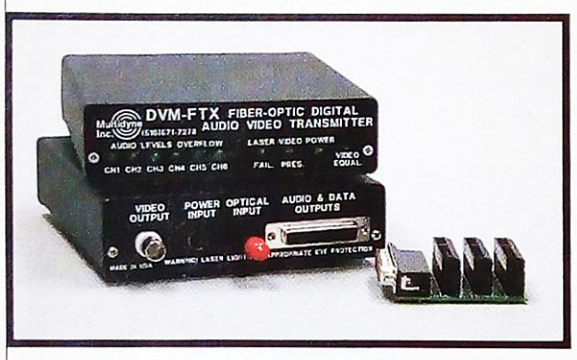
New Products

Fiber-optic multiplexer

Multidyne Video and Fiber Optic Systems has introduced the DVM-2000 12-bit video and 24-bit audio fiber-optic multiplexer, whose performance, the company says, exceeds RS-250C short-haul and broadcast specs. The system will support one video and up to six audio and data channels. The transmitter and receiver modules plug into a 10-channel frame with redundant power supplies, or are available as standalone units. Applications include links from studio to transmitter, studio to studio, studio to cable-TV headend, distance learning, satellite uplinks and downlinks, common-carrier transport, telco circuits and back-haul feeds from special events.



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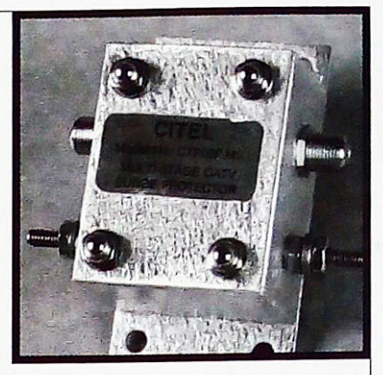
Cable-TV surge protectors

CITEL has unveiled its new cable-TV surge suppressor, which uses a multistage design and combines the use of a heavy-duty gas tube, capacitor and a toroidal inductor. Designed for frequencies from 54 MHz to 800 MHz, the protector comes with two female F-type connectors, and can be mounted on a wall or a backboard.



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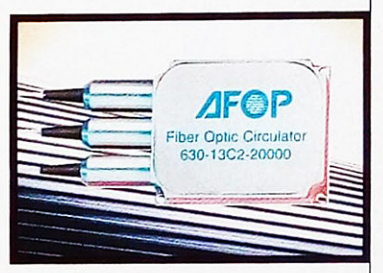
Connector, adapter, loopback products

Alliance Fiber Optic Products has released a full line of MTRJ small-form factor connector, adapter and loopback products. The MTRJ system is a fully standard product line and includes both multimode and singlemode connector components. The company's adapter solutions fit standard SC simplex panel openings and are available with a shutter-style dust cap.The MTRJ Loopback offers a small form factor performance connector and completely enclosed fiber system, which ensures repeatable performance without the concern of handling damage.



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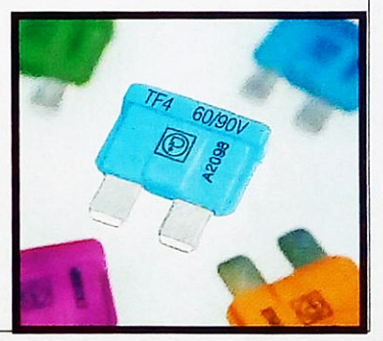
Web site: www.afop.com

Blade fuses for cable-TV amplifiers

PUDENZ has introduced a series of slow-blowing, automotive-type blade fuses designed for cable-TV system amplifiers. The TF, or time-delay fuse was developed in response to the cable-TV industry's desire to eliminate premature fuse blowing and nuisance outages, according to company officials. The outages occur in response to certain current spikes as a result of surge protection module (SPM) firing, and lightning. The elimination of premature fuse blowing allows operators to provide a higher level of service and better network reliability.



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Cable network and interference emulator

Telecom Analysis Systems (TAS) has announced its new 8250 Cable Network & Interference Emulator, which emulates hybrid fiber-coax cable network impairments in a controllable laboratory instrument. The 8250 is suited for evaluating the transmission performance of cable modems, Cable Modem Termination Systems (CMTS), set-tops, HDTV equipment and Internet-protocol telephony products.

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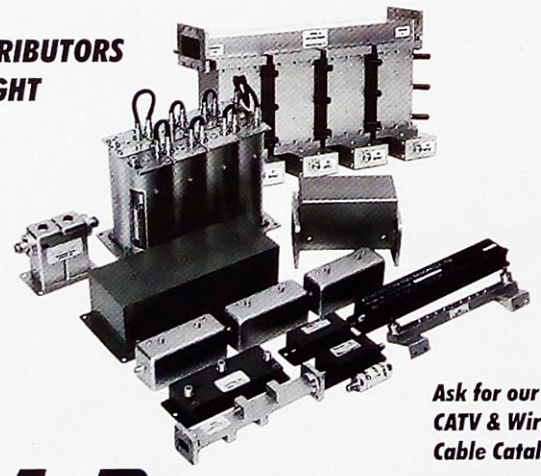

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BBC World,

Continued from Page 22

tisers. However, she says, many Europeans prefer BBC World because it is European and because it has a more relaxed style. Yet CNNI remains the most important news channel because it has the best distribution and reach in Europe.

"Euronews is not so interesting, because it is usually in the local language in the hotel room, while Sky is not such a well-known brand outside Britain," Perry says.

In Spain, CNNI is more popular, says Manuel Aldana, head of research at direct-to-home (DTH) platform Vía Digital. "CNN is like a universal channel; it is more than an American channel."

According to Alexandre Michelin, vice president programming at French DTH platform Canal Satellite, "most French viewers are not interested in foreign-language news. BBC World has a strong brand. But CNN is also well-known, and it is the channel that people turn to when there is a major international breaking-news story."

> "We don't want to copy CNN. One of our unique selling points is that we provide a global perspective to the news."
>
> — *Patrick Cross, managing director, BBC World*

Be that as it may, French viewers want the news in their own language, Michelin says. Bloomberg has done this, he points out: "It has French presenters, French news and French financial information. [It] is regarded as a French channel."

While the competition between news channels is rising, it probably hasn't reached its zenith, at least not in Europe. "We think that the market for news channels is a growing market," says Euronews's Wheatley. "There are lots of new channels coming in, and this shows that there is a demand, and people are watching more than one." Part of his optimism comes from a healthy year-on-year advertising rise at Euronews; 1999's results were 65 percent greater than the year before.

BBC World correspondent Matt Frei in the field

Some of the new competition Wheatley refers to will come from one of his network's own allies, ITN. Stewart Purvis, who is both president of Euronews and CEO of ITN, is spearheading the launch of ITN's news channel, which was announced officially last month and is expected to launch later this year.

"There is room enough for all these 24-hour news channels," Purvis says. "There are healthy livings to be made by targeting particular sectors of the market, as long as you've got the cost base right."

Getting the cost base right is clearly what it's all about at BBC World. As long as it keeps skating away from the thin ice created by its losses and keeps its eye on the grander digital vision, it's clear that the BBC will keep waving its flagship channel ahead. ■

BLIPS ON THE SCREEN

Callahan,
Continued from Page 6

And last month the operator announced the creation of a unit that will develop broadband-Internet content and services.

"The telephony market had traditionally been underserved. We exploited the opportunity by building an alternative local loop offering full service and not just reselling," says ONO CEO David Colley, who called the shots at the British operations of Canada's Le Group Vidéotron Ltée.

That's a commendable charge in any market. But lately, Spanish regulators have been chipping away at the period during which cable franchisees can operate free of competition from telecommunications giant Telefónica S.A. And that could spell trouble for even the savviest of upstarts.

"Callahan got in early, at the right time, when the regulatory environment looked good," says Richard Woollam, director general of the Association of Private European Cable Operators trade group. Now, "Telefónica is putting [fiber-optic] rings around major cities. It would be simple to roll out a broadband strategy of some sort."

Colley acknowledges that Telefónica has long been a concern of analysts and investors, but says that even though the company may be on the goal line, it won't go for the score.

"To this day they haven't started [laying cable], and I don't think they will," he says. "They'd cannibalize their existing revenue streams," including direct-to-home platform Vía Digital, as well as its copper network, which could use digital-subscriber-line technology to transmit broadband services.

The situation is a bit better in France, where, according to Woollam, the government is more intent on fostering competition in the cable industry. CAI's investment there, NC Numericable, a partnership with France Télécom S.A. and Canal Plus S.A., is charging along with 390,000 subscribers, and in January inked a deal to transmit America Online Inc.'s French service over its network.

There's some skepticism about CAI's German investment. Over the past year, Deutsche Telekom has changed the terms of its massive cable-systems sell off so often that European cable executives — at least those who didn't bid on any of the systems — wonder what kind of regulatory framework exists and if Deutsche Telekom is the best of teammates. Callahan's retort: "We're the operator of the business." What's more, CAI is in exclusive talks for another Deutsche Telekom system.

Callahan puts a lot of stock in recruiting the right team. "I don't have any rookies. Everybody is very experienced," he says. Many of them, including Colley, are colleagues from the old U S West days. And its hard not to notice a certain pride when Callahan speaks of the assets he helped the company build.

Today, those international properties are up for sale, amid AT&T Corp.'s purchase of MediaOne Group Inc. So is a sale of Callahan's current properties in the cards? Well, sort of. Callahan says an initial public stock offering could occur in 2001 or 2002.

Aryeh Bourkoff, a high-yield debt analyst at Warburg Dillon Read, reckons that while the German deal gives Callahan "a strategic foothold on which to build a bigger presence in the region," a property such as ONO could also be a target for bigger players such as United Pan-Europe Communications N.V. or NTL Inc.

Whatever happens, don't look for Callahan to head to the locker room. Even after hip-replacement surgery in January, he spent a good chunk of the first quarter shuttling between Europe and the U.S. to concrete the agreement with Deutsche Telekom. ■

Chile,
Continued from Page 6

and post-game coverage of major sports events.

"The heart of our business is, and will always be, music," says Venegas. "But the experience we've gained in that field has taught us that similar opportunities for local programming exist in other areas, too."

But with pay TV subscriber growth in Chile slowing, these niche markets may not offer the same lucrative incentives they did when Via was founded six years ago. Indeed, Via executives admit that the company has yet to turn a profit, and that operating breakeven is still a few years off. Add to that the constant pressure Chilean MSOs say they're under to reduce programming costs, and even a feisty player like Via would seem to face an uncertain future.

To offset that gloomy forecast, Via, like the MSOs it services, has placed its expansion hopes in the Internet. Through a new unit called Content Solution Partner, Via recently began supplying so-called hyper-media content to VTR's new broadband-Internet unit. Maintaining its focus on music, Via-produced interactive feeds allow Web users to view behind-the-scenes chats with artists, play video clips on demand, and even use streaming audio and video technology to view live concerts on their PCs.

"A lot of companies run their business according to their profit margins and forget that pay TV is a form of entertainment."

— Luis Venegas, president, Via Comunicaciones

Via "has a clear and bold vision of how pay TV and the Internet will increasingly depend on one another in the future," comments Herve Delhumeau, head of strategic content development for VTR. "And with Venegas as their president, they have the resources to get the job done."

A large chunk of the material Via uses comes from Providencia Televisión, another Venegas venture and Chile's top entertainment group.

In order to capitalize on his expertise of the music industry, Venegas says an even closer association with his television operation is being considered in the medium term. Still, for now, Via's focus remains on Chile. "Our main priority is strengthening our brand name recognition in Chile, and providing attractive content not covered by our larger competitors," he says.

Via's more modest approach may be out of step with its more assertive competitors. That's OK, says Venegas. "A lot of companies run their business according to their profit margins and forget that pay TV is, above all else, a form of entertainment," he surmises. "But when you lose sight of what consumers really want, the entire industry suffers." ■

Mudslinger,
Continued from Page 6

"After these results, Primakov should go home and hang himself," Dorenko told one group of reporters. "I did not influence this campaign at all! I just expressed myself."

Dorenko — a 40-year-old anchor who's worked for almost every Russian TV channel and also served as a Russian stringer for CNN en Español — certainly knew how the often-inflammatory remarks he dispenses on his show influenced the campaign. And there's little doubt his program is having a similar effect these days, as the March 26 presidential elections approach.

Part of the strength of Dorenko's message can be attributed to ORT itself, which is accessible to 98 percent of Russian homes. It's 51 percent state-owned, but controlled by a minority shareholder, tycoon and Kremlin insider Boris Berezovsky. ORT is also picked up by cable systems in areas where broadcast reception is poor.

But it's the nature of Dorenko himself that leaves the greatest impression. Last fall, millions of people tuned in to watch him viciously sling mud at Luzhkov and Primakov, who threatened the Kremlin's grip on power. Dorenko's presentation was always witty and emotionally charged. Week after week, he used computer-generated graphics to turn Luzhkov into Mussolini or Monica Lewinsky. He also investigated Luzhkov's alleged illegal real-estate holdings in Spain.

When Dorenko lost a libel suit filed by Luzhkov, he turned the coverage of the court case into another string of accusations against the Moscow mayor, saying that the city's courts are on the mayor's payroll. During one show, he televised an eight-minute, illicitly obtained soft-porn video of General Prosecutor Yuri Skuratov, a Yeltsin's critic, carousing in bed with two prostitutes.

"There is dirty politics where there are dirty politicians," Dorenko says, in explaining his mode of journalism. "Even on the grounds that we have dirty politicians, I believe my viewers shouldn't be deprived of the right to know."

When asked last December about his plans for the year 2000, Dorenko responded, "Do you think there will be no idiots left in politics by then? Even if that happens, believe me, I don't have — and never have had — any plans... Creativity is a spontaneous self-manifestation. It is your sense of reality, which you, with the force of creation, turn into other people's sense of reality."

Dorenko's sense of reality is certainly shaping the present election race. Primakov — the only politician capable of mounting any significant challenge to Putin — is unlikely to run, in part because he does not want to face more attacks from Dorenko, according to sources from his entourage.

That's created a bit of a void for Dorenko, whose talent primarily lies in attacking the competition. That's not to say he hasn't had his resources. He recently ran a lengthy, favorable interview with Putin. (In fact, it was the first such interview the mysterious acting president granted to any TV channel.) For good measure, Dorenko continues to slam his old foes Luzhkov and Primakov.

Does Dorenko really come across as credible? According to December research by the private Institute of Comparative Sociological Research, 62 percent of respondents said they believed information presented by ORT, and only 24 percent saw it as unfair in any way.

Dorenko's program is by far the most-watched political show in Russia. According to research company Gallup Media, an average of about 15 percent of Russians living in big cities watched the show September through November, giving him an average viewing-audience share of about 40 percent. In rural areas, ORT is often the only available channel.

A study by the Germany-based European Institute for the Media contended that Dorenko's show was just one, though perhaps the strongest, link in the grand offensive by the government — and Berezovsky-controlled media — against Fatherland-All Russia. Further perspective comes from the prominent Russian media sociologist Vsevolod Vilchek, who says that propaganda during the parliamentary campaign "reached Stalinist-Hoebbelsian levels."

Manana Aslamazyan, general director of Internews Russia, a nonprofit television-news production and training group, says Dorenko is "the most outrageous example" of how Russia's leading TV anchormen give up their independence in favor of a "political assignment."

"Every week you would think that there is nowhere further to go. But, nonetheless, it gets lower and lower," Aslamazyan says. ■

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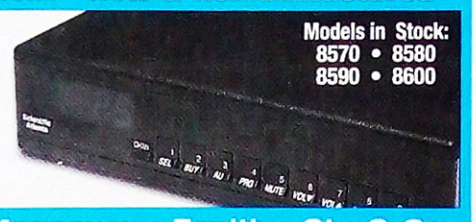

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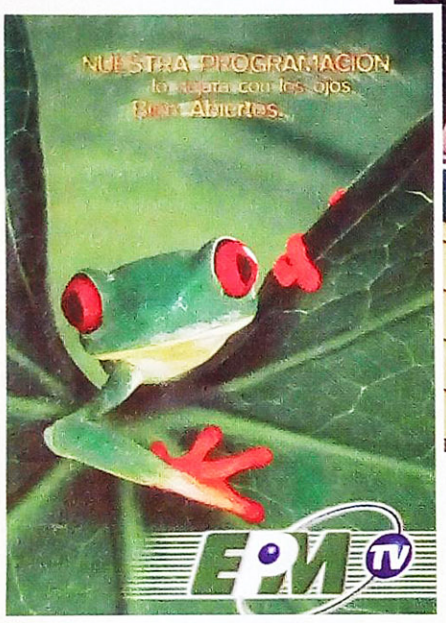
Colombia,

Continued from Page 12

ket is completely distorted," says EPM-TV general manager Lina Echeverri.

The complaints flow in two directions. Some accuse EPM-TV of not always playing fairly and squarely in the past. Among them is Germán Yances, a media analyst and former consultant to the National Television Commission, the agency that oversaw last year's mammoth cable-licensing process. He alleges that EPM-TV has used the power of its parent company EPM in the past to curtail the expansion of rival Medellín cable operators, specifically Veracruz S.A and Cable Sistemas S.A., now called Cable Unión de Occidente S.A.



EPM-TV's headquarters, above, and promotional literature

Exerting its power as Colombia's largest public utility company, EPM reportedly blocked the expansion of competitors simply by stalling the crucial pole-attachment licenses cable companies need to hook up their overhead cable lines. Says Yances: "The way EPM came into the cable business was very questionable. They blocked the growth of the two licensed companies, Veracruz and Cable Sistemas S.A., and in 1997 they bought Veracruz, then at the point of suffocation."

At the same time, Yances heaps praise on the company. "EPM-TV's work is very well organized and efficient. The company demonstrates drive and initiative, and a great administrative capacity," he says.

His attacks, though, are emphatically denied by EPM-TV officials. They firmly state that their parent company treats all cable operators equally. "What we have with Cable Unión de Occidente is a very clear business rivalry," says Echeverri.

One of EPM-TV's competitive strategies at present is in advertising, in which the company is attempting to create strong brand loyalty among subscribers. Says Paola Pulido, EPM-TV's advertising executive: "We are trying to apply a market approach based on the notion of lifestyle and experience. When you buy our trademark you buy a 100-percent-entertainment experience."

But it is tough competing in an environment where ex-informals are still charging low subscription fees. To a large extent, this is a hangover from the past, when informals could charge as little as a few dollars a month because many pirated signals and effectively avoided paying intellectual property rights.

Now as formal entities they cannot do this, but to keep fees low, and subscribers loyal, many have chosen to cut programming costs by underreporting their customer bases, says EPM-TV's Perez. "If piracy and informality was the industry's main issue last year, this year it will be underreporting... It's the only way [ex-informals] can generate profits in Colombia," he says.

As Echeverri explains, "There is a race going on to keep subscribers. In terms of prices, the minimum for just barely maintaining an outdated network is a monthly fee of 11,000 pesos [$US6]. If you want some basic-subscriber service or some minimum investment in upgrading your network, you cannot charge less than 15,000 pesos [$US8]." She adds that EPM, similar to other traditional licensed operators, charges monthly fees of between 59,100 pesos and 68,950 pesos ($US30 and $US35).

Nevertheless, the company would like to see greater cooperation from programmers on pricing and other issues. "Flexible-pricing strategies are needed. An integral policy against underreporting would also be useful," says Pérez, warning that "if there are no changes, [programmers] may well be killing the goose that laid the golden eggs. Namely us."

One way in which EPM intends to stay ahead of the curve is by becoming a broadband network. It is a notable ambition in an industry still getting the basics together. According to EPM-TV, the future involves moving into high-speed Internet, telephony, and interactive television, though always in conjunction with EPM, itself a veteran telecommunications provider.

"The changes that have occurred worldwide have to occur in Colombia also. Cable must no longer be a mono-product, and coaxial. It has to be conceived as telecoms, which means working toward fiber, high-speed Internet, and interactivity," says Echeverri. Certainly, that vision has not gone unnoticed by the likes of Juan Carlos Gómez, principal lawyer at Juan Carlos Gómez Asociados.

"EPM-TV's strategic vision follows world tendencies in that it is trying to build an operation based on multiple services and not just pay TV," says Gómez, a former director at state-owned broadcaster Inravisión. Indeed, the company is actively engaged in building strategic alliances with public regional telcos in the western part of the country and in designing networks from scratch.

It is the kind of dynamism that translates into bullish talk from company executives. Echeverri says EPM-TV will be one of the two or three operators in Colombia that in 10 years will control some 70 percent of the market. It is a boast that finds agreement. When asked whether the company will be one of those survivors, Yances is quick with an affirmative answer. "You can bet on that," he says. "They have the financial backing and they have the networks. They are investing in fiber-optic telephony. They'll be part of the winning group." ■

Asia,

Continued from Page 18

for geographic boundaries are smuggling decoder boxes — which resell for between $US1,000 and $US1,500 — to platforms including Indovision, Measat and UBC. The price includes a year's free subscription to the programming on the DTH bouquets. One decoder box will then serve a community or group of households.

Lobregat cannot put an exact figure on the cost of DTH signal piracy, but does say, "Maybe there are a few hundred illegal [DTH] distributors, each with subscribers numbering 300 to 400. These are small operations in small towns, the likes of which it would not be worthwhile attempting to prosecute." Opinions are mixed on how much the problem persists, but most agree that there's still work to be done.

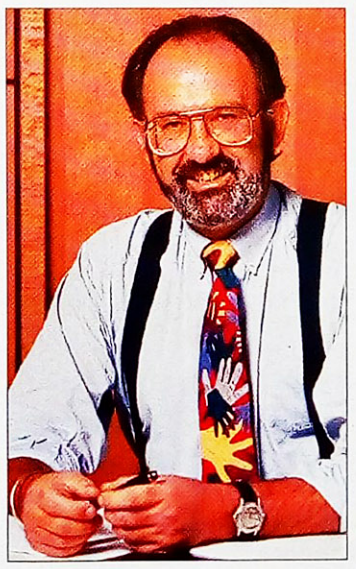
HBO Asia is one of the only networks in the region to have taken action against pirates so far. In October 1999, the network used its opaque fingerprinting system to track down a batch of illegal decoder boxes in the Philippines and deactivate them. The illegal boxes were from Pacific Digital Media, a Taiwanese DTH service. "We are consistently monitoring piracy, as well as working very closely with local authorities, such as the [National Television Commission] to stem this issue — on a longer term basis," says HBO Asia senior vice president of sales and marketing James Marturano.

According to Star's Ragless, the real solution in the Philippines lies with the upgrading of equipment. Once operators upgrade, they'll be able to tier program offerings and build their subscription revenue. Then, he maintains, the need to under report will be lessened.

He also opines that DTH platforms should be held more accountable for the whereabouts of their decoder boxes. "If serial numbers were recorded more diligently, and distribution routes more closely monitored, retailers and distributors might think twice before knowingly selling decoder boxes to external or illegitimate parties," Ragless says.

> "To some, underreporting is a necessary evil to help operators pay for expensive Western programming."
>
> *— Paul France, president, CNBC Asia*

Clearly, the approach to confronting pirates is different for encrypted and unencrypted channels. With just one revenue stream to guard, scrambled channels like HBO have far more incentive to be tough on pirates through raids or simply by deactivating boxes. Unscrambled channels, which are trying to build their subscriber numbers to attract advertisers, are more apt to approach the problem by trying to legitimize pirates.



Brown admits that for MTV Networks Asia, cable and satellite piracy is "less of a problem [than for encrypted channels] since it is essentially free marketing." However, unofficial viewers to some extent represent lost advertising revenue. And for services like those in MTV's Asian group — which straddle both television and music — piracy constitutes the biggest single problem currently faced in the region, Brown says.

Yet for all the seriousness of the problem, Ragless maintains a sense of optimism. "In some countries programmers see there is now a chance to take effective action." He and others say there are plenty of signs that the raids on unsuspecting pirates — like those in Hong Kong, the Philippines and India — are likely to crop up as the year progresses. Whether they take on the dark-and-stormy-night scenario that Ho describes is yet another matter ■

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IPOs

Cashing in on Chello

INVESTORS LUSTING for all things broadband should hear a love song playing late this month or sometime in April, when European high-speed Internet platform chello broadband N.V. is expected to sell shares in its initial public offering.

Chello and its parent, United Pan-Europe Communications N.V., are keeping the cards close to their chests on the IPO, but analysts familiar with the two say the sale should attract strong investor interest.

"People are pretty excited about it," says one analyst who asks not to be named. "It's Europe's first broadband IPO."

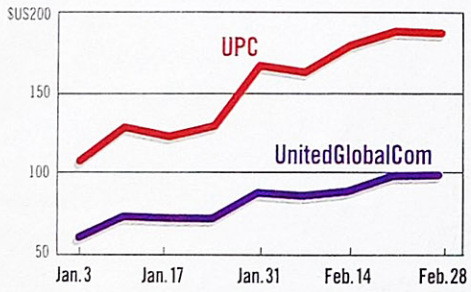
Analysts say up to 20 percent of chello's equity could be floated in the sale, with half of that going to Microsoft Corp., which owns almost 8 percent of UPC and has an option to buy 10 percent of chello. Analysts also figure chello, with 133,700 subscribers, could be valued in the area of $US2.5 billion, though that number could go as high as $US4 billion, given strong enough demand and healthy financial markets.

Clearly, much of the value is based on future potential. UPC has about 6 million subscribers, whom one analyst describes as "a captive market" for chello. The high-speed platform is also heading into other markets this year, including Australia, New Zealand and Latin America, where UPC parent UnitedGlobalCom Inc. has operations.

Chello has had an impressive past 12 months, more than tripling its subscriber base, and aggressively adding content. Says one analyst: "chello is a brand built to stand the test of time." Goldman Sachs & Co., Morgan Stanley Dean Witter & Co. and Donaldson, Lufkin & Jenrette Inc. are expected to underwrite the IPO. The number of shares that will go to individual investors is unclear, as are allotments to current UPC or UnitedGlobalCom shareholders.

Shares of both have made strong gains, thanks in part to anticipation of the chello IPO. UPC's year-to-date gain as Feb. 28 stood at 77 percent, while UnitedGlobalCom was up 76 percent.

Rich Parents: weekly closes



A Rising Tide

ACCORDING TO MANY ANALYSTS, Europe's Internet market is about 18 months behind that of the United States. But the whiff of dot-com potential has propelled the region's media stocks, at least, to play a game of catch-up this year.

Credit a lot of that to enthusiasm for content and distribution plays in the wake of January's merger agreement by Time Warner Inc. and America Online Inc. — the world's biggest media company and Internet company, respectively.

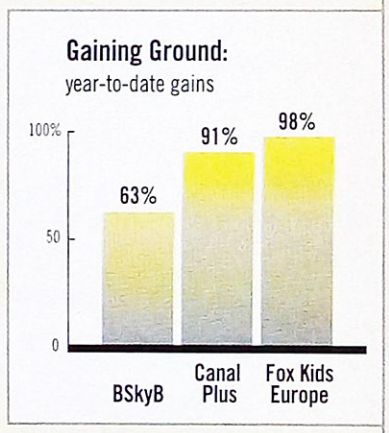
The deal "has inevitably pushed other content plays into the spotlight, in both the U.S. and Europe resulting in an almost overnight re-rating of certain key names," Morgan Stanley Dean Witter & Co. analysts wrote in a recent report on Fox Kids Europe, which sold shares in an initial public offering last year.

EUROPEAN MEDIA

"We believe that the AOL/Time Warner agreement could also be perceived as an acknowledgement by traditional entertainment companies that the Internet is a core part of both their strategies and their businesses," the report stated.

Investors are certainly acknowledging it. At press time on Feb. 28, shares of Fox Kids Europe, which trade on the Amsterdam stock exchange, were up 98 percent this year. Other big gainers include France's Canal Plus S.A. — up 91 percent year to date — and British Sky Broadcasting Group plc, whose shares have gained 63 percent since Jan. 1. BSkyB and Canal Plus are making extensive forays into new media while taking advantage of their huge distribution assets.

Gaining Ground:
year-to-date gains



BSkyB's Open joint venture — with partners British Telecommunications plc, HSBC Holdings and Matsushita Electric Industrial Co. — has turned the digital direct-to-home platform into a "walled garden" of interactivity. Canal Plus, meanwhile, is amid an effort to squeeze as much as possible from its content by leveraging it over multiple distribution platforms, including the Internet.

To be sure, the companies' earnings haven't kept pace with the gains in their share prices. Morgan Stanley currently has a "neutral" rating on Canal Plus' shares, and in a recent report its analysts quipped that "valuing the European pay television is rapidly becoming an abstract art form."

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THE PAY TV PAYOUT

Company	Ticker	Exchange	Close 1/31	Close 2/28	Percent Change	52-Week High	52-Week Low
AsiaSat	SAT	NYSE	$36.69	$35.81	-2.39	$44.50	$13.75
AT&T	T	NYSE	$52.75	$45.00	-14.69	$63.41	$41.50
British Telecom	BTY	NYSE	$196.00	$182.75	-6.76	$245.00	$143.00
BSkyB	BSY	NYSE	$143.00	$151.31	5.81	$192.00	$40.62
Broadcom	BRCM	Nasdaq	$144.66	$191.00	32.04	$197.87	$23.12
Cablevision Systems	CVC	NYSE	$76.38	$65.56	-14.16	$91.87	$58.75
Cable & Wireless	CWZ	NYSE	$76.63	$88.75	15.82	$89.12	$44.50
C&W HKT	0008	Hong Kong	$2.43	$3.33	37.30	NA	NA
Canal Plus	CNLP	Paris	$186.34	$269.80	44.79	NA	NA
Com21	CMTO	Nasdaq	$31.56	$63.44	100.99	$64.50	$10.37
Deutsche Telekom	DT	NYSE	$69.63	$87.81	26.12	$93.00	$36.01
Excite@Home	ATHM	Nasdaq	$36.03	$34.00	-5.64	$99.00	$33.00
Flextech	FLXT	London	$21.57	$25.71	19.21	NA	NA

Company	Ticker	Exchange	Close 1/31	Close 2/28	Percent Change	52-Week High	52-Week Low
Globo Cabo	GLCBY	Nasdaq	$20.75	$21.50	3.61	$25.00	$1.00
MIH	MIHL	Nasdaq	$64.00	$78.00	21.88	NA	NA
News Corp.	NWS	NYSE	$47.94	$55.13	14.99	$60.50	$26.31
NTL	NTLI	Nasdaq	$100.65	$92.50	-8.10	$109.68	$43.60
PanAmSat	SPOT	Nasdaq	$52.56	$44.00	-16.29	$74.25	$26.37
Rogers Comm.	RG	NYSE	$30.44	$33.13	8.83	$42.25	$14.62
Scientific-Atlanta	SFA	NYSE	$77.06	$104.13	35.12	$110.81	$24.50
Shaw Comm.	SJR	NYSE	$21.25	$26.63	25.29	$29.00	$12.56
Telefónica	TEF	NYSE	$76.00	$86.88	14.31	$94.93	$40.36
Televisa	TV	NYSE	$55.50	$76.06	37.05	$87.00	$24.62
Telewest	TWSTY	Nasdaq	$62.25	$71.25	14.46	$81.00	$33.87
UnitedGlobalCom	UCOMA	Nasdaq	$68.38	$98.25	43.69	$99.25	$16.00
UPC	UPCOY	Nasdaq	$127.50	$189.00	48.24	$189.37	$31.12

Source: CNET Investor

ONE ON ONE

Oceans of Opportunity

MIKE GALETTO SPEAKS WITH JOHN LEGERE

Columbus' voyage to America was kid stuff. At least it seems that way compared to what's afoot at Global Crossing Ltd. The Bermuda-based company is on its way to wiring the world, literally, constructing a 97,200-mile network of high-capacity undersea cables connecting every continent, save Antarctica.

A major component of that network will be in Asia. The company's point man in that region is John Legere, who was named CEO of the Asia Global Crossing unit last month after extended stints in the region with AT&T Corp. and, most recently, Dell Computer Corp.

Global Crossing is branching out as well, with the creation of internal units such as Global Center, which provides Web-hosting and other services to Internet companies. On the acquisition front, Global Crossing last month agreed to buy IPC Communications Inc. and its subsidiary IXnet Inc., providers of telecommunications services to the financial industry. And this month it named cable veteran Leo Hindrey — the former president and CEO at AT&T Broadband & Internet Services and Tele-Communications Inc. — as its new CEO.

Asia Global Crossing has some ambitious ventures of its own, including a $US1.2 billion joint venture with Hong Kong conglomerate Hutchison Whampoa to pursue fixed-line and Internet business there, and a pact with Japanese research-and-development firm Internet Research Institute Inc. (IRI) to establish Global Center operations in that country.

In the following edited interview, Legere discusses what lies ahead in his corner of Global Crossing's "world-wide web."

GALETTO: So how does a company like Global Crossing fit into this whole world of convergence and broadband?

LEGERE: Convergence is nothing more than multiple forms of media trying to drive its way down the same set of facilities, and that's what Global Crossing is building worldwide.

Broadband is nothing more than a definition of a bigger pipe. Undersea cable systems have evolved hugely over the years. The kind of network that Global Crossing is building is trying to bring the latest state-of-the-art, high-capacity broadband networks undersea, connecting the whole world, then to terrestrial systems and inner-city fiber rings. This is a network of the highest capacity right out to the customer. It's taking that network from the sea out to the desk.

GALETTO: Where are your biggest market opportunities in Asia?

LEGERE: You've got the most sophisticated and developed markets with customers requiring sophisticated, high-bandwidth networks. Financial cities like Tokyo, Seoul, Taipei, Sydney and Singapore. We'll be building Global Crossing connectivity to those points.

More exciting, though, are less-developed countries that have the opportunity to leapfrog entire generations of connectivity and capacity. These are countries like China, The Philippines, Vietnam, Indonesia, etc. One of the early targets for Global Crossing will certainly be China.

GALETTO: How big is your potential in China?

LEGERE: If you look at [telecommunications] traffic flows in the world, historically the U.S. has been the focal point. It's inevitable that traffic will hub in and out of China, especially in Asia. China right now has some limitations from a standpoint of your ability just to show up and build infrastructure, which makes partners probably the most critical aspect of advancing your business.

We have a 50 percent ownership with Hutchison Whampoa in the creation of terrestrial capability at the cable end into Hong Kong. We have certainly looked at the opportunity of landing cables at multiple points in China and then working through Hutchison Whampoa on how to build terrestrial capabilities and advanced operations into China.

GALETTO: What kinds of acquisitions or partnerships could occur in Asia going forward?

LEGERE: In Japan, we have a venture with IRI for Global Center capabilities, and we now have a relationship with IXnet, which serves financial institutions in Tokyo. In Hong Kong, Hutchison Whampoa is already a fixed-line provider, including residential capability, so we do have a significant set of customers evolving there.

I think you'll see a hearty appetite to take this network to the end user. And we'll do that in Asia in aggressive ways.

GALETTO: What are some of the hurdles to building a pan-Asian network?

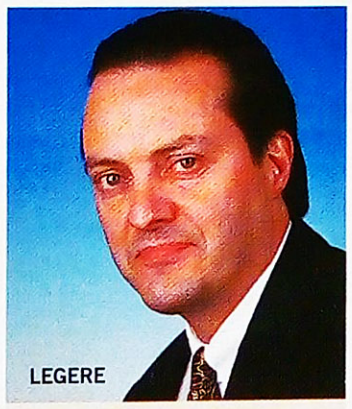
LEGERE: If you were to survey 10 people, you would definitely get 10 answers that regulatory hurdles in Asia have been what have stopped traditional networks.

With the recent return to vigorous health in the economies of Asia and, as part of that, the loosening of regulations and legislation, one by one, markets are providing the crack in the door for ownership, either through partnerships or total investment.

Due to the unbelievable differences in each market, partners are critical.

GALETTO: Asia Global Crossing shareholders Microsoft Corp. and Softbank Corp. come from different sides of the business than Global Crossing. How will you exploit that relationship?

LEGERE: It's important to not look



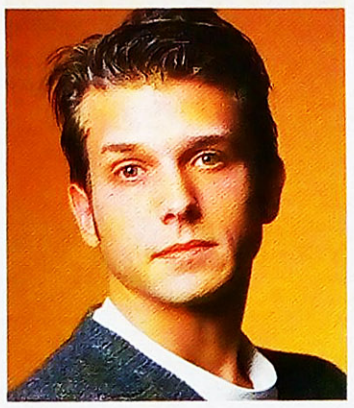
LEGERE

JOHN LEGERE

TITLE:
CEO, Asia Global Crossing

BACKGROUND:
Joined Asia Global Crossing last month after heading Dell Computer Corp.'s European operations and, prior to that, its Asia-Pacific business. Also held a number of high-ranking positions with AT&T Corp., including a three-year post as president and CEO of its Asia-Pacific unit.

STATISTICS:
41 years old; moving from London to Beverly Hills, Calif.; married with two children.



at companies like Global Crossing, Microsoft or Softbank in just the piece where they currently perform. When you start to think of things like Internet-protocol-based systems and Web hosting, you start to see why companies like Microsoft, Softbank and Global Crossing see each other as hugely valuable partners.

GALETTO: With the evolution of applications like streaming video, what will your role in the media industry be?

LEGERE: When you start to see the size of the bandwidth we're creating and the potential evolutions that will take place with dense-wavelength-division multiplexing — when you get to a world of unrestricted bandwidth — you'll see free flow of massive forms of video.

With the America Online Inc.-Time Warner Inc. [merger agreement], you see hedging on the understanding that massive forms of information and entertainment will be moved over networks onto desktop computers or other access devices in the home or business.

We'll do what we need to bring content and applications to customers. If media customers can be served by Global Crossing making some acquisition and/or relationship creation to specifically serve them at the end of our networks, we are interested.

GALETTO: With so much talk about two-way data over satellites, how do you think you compete with them?

LEGERE: At least defined technologically, I don't see satellite as having the same capabilities as the unbelievably high-bandwidth, multiple terabits of information, being provided by undersea cables and optical fiber. The evolutions in optical fiber with dense wavelength division multiplexing are so much superior from a quality and bandwidth standpoint, so we see satellite as a filler-in around the edges of our network.

GALETTO: On a different tack, what did you think of Singapore Telecommunications and Pacific Century CyberWorks fawning over Cable & Wireless HKT?

LEGERE: I would have to think that [Pacific Century CyberWorks chairman] Richard Li is much more interested in access to the customer base and the license into the network.

I wish them the best of luck, but I'd much rather have our global network and our partner in Hong Kong than need to be shopping at this point. ■

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